

AMERICAN GAS ASSOCIATION

*Monthly*

OCTOBER  
1949



# THE OLD STOVE ROUND-UP'S UNDER WAY IN BROOKLYN AND QUEENS

## GET RID OF YOUR TIRED OLD RANGE AND ENJOY THE NEW PERFORMANCE OF MODERN AUTOMATIC GAS COOKING

Brooklyn Union and its licensed plumber-dealers are hitting the trail to round up old and inefficient ranges and replace them with smart new Gas models that give real cooking pleasure.  
Ovens that cook entire meals while

you're away. Burners that light automatically without matches at the flick of a wrist. Insulated Gas ranges that keep your kitchen many degrees cooler. Sleek, smooth surfaces, as easy to wash as a dish. Simmer-save top burners that give

any heat you need. Oven heat controls that insure perfect baking results. Speedy-flame, smokeless broilers for that real tasty charcoal flavor. These are modern range features you'll want to get during the greatest Gas range sale of all time.

Come in and see this grand array of magnificent new Gas ranges at any Brooklyn Union office or plumber-dealer showroom

A RANGE FOR EVERY PURSE AND PURPOSE

GREAT NEW  
RANGE  
FEATURES



### ROPER

Model CP-45-7364

Featuring the 4-burner "Staggered" top, roll-out, waist-high smokeless "Glo" broiler, large "Super-Speed" oven with non-tipping racks, toasting compartment and storage drawer.



### Magic Chef

Model CP-31301-14

Featuring divided top-burner arrangement, large "Swing Out" smokeless broiler, famous Red Wheel oven heat regulator, easy-to-clean porcelain enamel inside and out, clock and timer.



### Universal

Model CP-34-221

Featuring one-piece stain-resistant porcelain top with divided top-burner arrangement, in-drawer smokeless broiler with exclusive "Whirlpool" broiler pan, oversized oven and 2 roomy storage drawers.

CONTESTS  
PRIZES



### TAPPAN

Model CPAY-649

Featuring Cove Top with exclusive "Tel-U-Set," large chromium-lined Vitaclean oven that lets you see inside, roll-out smokeless broiler with chrome pan, crisp-chest, utensil drawers and towel drier.



### HARDWICK

Model CP-7478-14

Featuring oversized oven that bakes four 8-inch cakes at a time, smokeless broiler on ball bearings, lamp, timer, crisper bins, drying racks.



### Quality

Model CP-8-3V10

Featuring space-saving top-burner arrangement, center-simmer burners for dozens of cooking speeds. Visador lighted oven so you can watch food cooking, smokeless broiler.

\$10.00 DOWN  
DELIVERS AND  
INSTALLS ANY MODEL  
36 MONTHS  
TO PAY

## PREMIUMS



## YOU MAY WIN THIS OLD STOVE ROUNDUP CONTEST IF YOU BUY NOW

For the oldest stoves turned in by buyers of new Gas ranges from Brooklyn Union or its plumber-dealers, during THE OLD STOVE ROUNDUP, the following prizes will be awarded:

- 1st PRIZE—Your new Gas range, FREE. Full refund of all payments made.
- 2nd PRIZE—\$100 credit against the purchase of your new range.
- 3rd PRIZE—\$75 credit against the purchase of your new range.
- 4th PRIZE—\$50 credit against the purchase of your new range.
- 5th PRIZE—\$25 credit against the purchase of your new range.

Complete contest rules are available at your nearest Brooklyn Union office or your neighborhood plumber-dealer's.

**THE BROOKLYN UNION GAS COMPANY**  
176 Remsen St., Brooklyn 3, N. Y. Triangle 8-7500  
HARST NEIGHBORHOOD OFFICES THROUGHOUT BROOKLYN AND QUEENS



## TO BUYERS OF "CP" GAS RANGES!

You get this \$24.50 SET OF  
DELUXE WEST BEND ALUMINUM  
WARE AT NO EXTRA COST

That's right! This fine set of top-quality aluminum utensils goes with your "CP" Gas range. You pay only the price of the range and receive the utensils, too. Count them!

- 1—2½-qt. Trig singing teakettle
- 2—3-qt. covered saucepan
- 3—3-qt. covered saucepan
- 4—5-qt. Dutch oven with cover, dual pans and rack
- 5—10½-in. covered skillet and chicken fryer



Southern Counties Gas Company pipeline patrolman lifting 30-inch elbow along Biggest Inch line. Photo by Mel Jones

**T**O many gas utilities, American Gas Association represents "acres of diamonds lying untouched at their doorsteps," in the words of Louis Ruthenburg, a featured speaker last month on the West Coast. This issue of the MONTHLY presents another valuable selection of "diamonds" and ways that they can be put to maximum use by the industry. . . . A joint financing study of utility capital requirements, released this month, is heavily set with helpful suggestions for member companies. Two feature articles on the Old Stove Round Up provide sterling pointers on tying in with that nationwide activity. Several companies reveal the benefits of planning on the local level in the home service and meter reading fields. . . . The largest and most valuable diamond of all this year will be the Annual Convention from October 17 through October 20. The "big show" will parade an unexcelled collection of precious gems—something to interest every "collector" in the industry. . . . On equity capital, on peak load planning and dozens of other vital subjects, "acres of diamonds" will be mined in Chicago.

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## Convention fare to please all tastes

**N**ext stop—American Gas Association convention! Program details are being completed and gas men from all over the country—more than 6,000 strong—are ready for the trek to Chicago, October 17-20.

Particular interest this year is expected in the general sessions address of Emil Schram, president, New York Stock Exchange, who will present an authoritative viewpoint on the importance of equity financing. This type of financing will play an important part in the gas industry's extensive construction program for the period 1948-52, estimates of which have recently been revised upward to 3½ billion dollars. (A comprehensive account of a new joint American Gas Association—Edison Electric Institute construction financing survey is contained elsewhere in this issue of the MONTHLY.)

Another top flight general sessions speaker whose address will attract wide interest is Harry M. Miller, chairman, The Public Utilities Commission of Ohio and recently elected president, National Association of Railroad and Utilities

Commissioners. Mr. Miller will speak on "Duplication of Regulation," sustaining as far as is possible the jurisdiction of the states in matters of intra-state regulation.

W. T. Bulla's address, "Our Place in the Spectrum," a feature of the Natural Gas Department session, should bring the industry up-to-date on mobile radio and provide food for serious thought. Offshore drilling and developments—another topic which has been in the headlines recently, will be covered in detail by Henry C. Cortes, manager, exploration division, Magnolia Petroleum Co., Dallas, Texas. An added feature at this session will be a showing of a new motion picture, "Pipe Dreams Come True," produced by Oklahoma Natural Gas Co., Tulsa. D. W. Reeves, general sales manager, will introduce the film.

Late developments on the Manufactured Gas Department's program include the addition of a report by Edward J. Tucker, vice-president and general manager, Consumers Gas Co. of Toronto, on "The Gas Industry Overseas." Recently returned

PLANNING  
FOR SALES

CUSTOMER RELATIONS

GAS PRODUCTION  
RESEARCH

EQUITY FINANCING

TRAINING  
TECHNICAL  
MANPOWER

1949 PENSION ATTITUDE

SAFETY  
IS YOUR  
BUSINESS

COMMERCIAL COOKING LOAD

"ep" vs. AC

DUPLICATION OF REGULATION

OFF NOTES ON TELEVISION

OPERATION ENTERPRISE

*Our Place In The Spectrum*

from a trip to England and the Continent as an official representative of American Gas Association, Mr. Tucker will tell his listeners about developments in the gas field abroad. Another attraction will be a talk entitled, "Making Plans for System Operation by Long- and Short-Term Forecasting." John B. Boniface, planning engineer, Public Service Electric & Gas Co., Newark, N. J., will be the speaker.

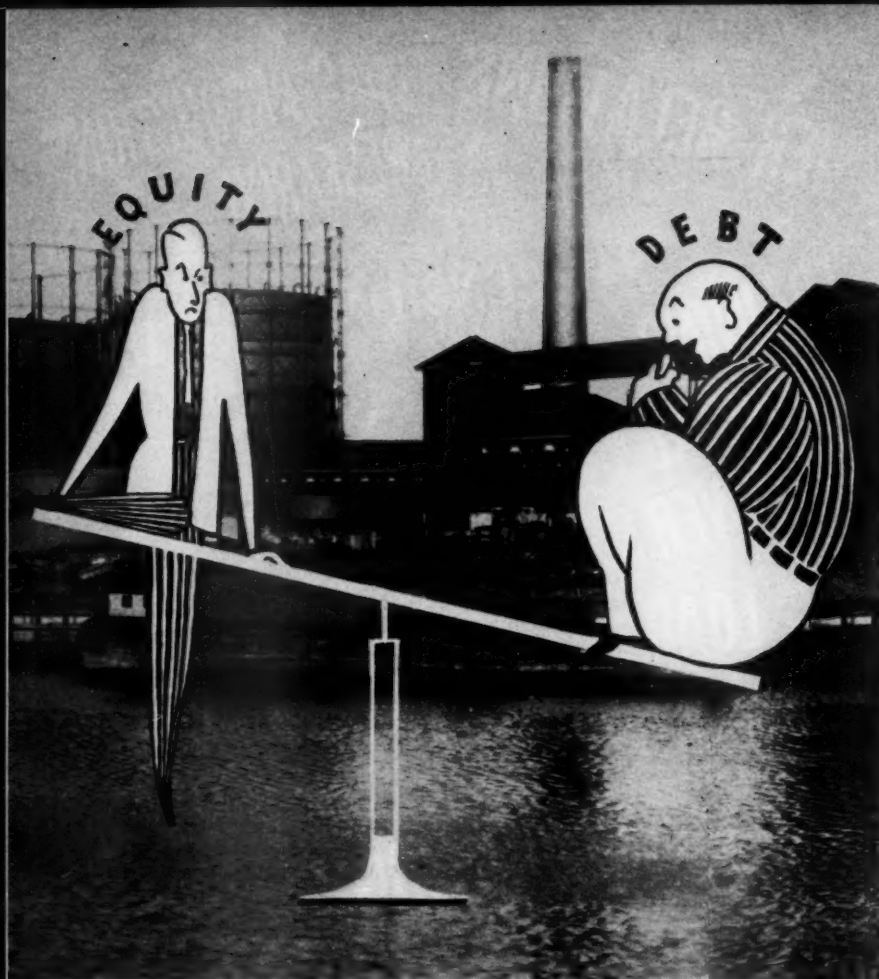
John H. Wolfe, general superintendent, gas operations, Consolidated Gas Electric Light and Power Co. of Baltimore, Baltimore, Md., will outline to his Manufactured Gas Department audience "What Research Means to the Gas Industry." A panel discussion on experience with natural gas in manufactured gas distribution systems will complete the manufactured gas session.

Zero hour changes and additions to the various departmental and sectional plans are expected to heighten and broaden still further the scope of the Association's thirty-first annual convention. The goal is a "49 Round Up" which will be a stimulating climax to one of the busiest years in

gas industry history.

D. A. Hulcy, president, Lone Star Gas Co., and vice-president, A. G. A., will preside at the Natural Gas session on Monday morning. H. H. Cuthrell, vice-president, The Brooklyn Union Gas Co., and also vice-president, A. G. A., will hold a similar position at the Manufactured Gas session on Monday afternoon. Three general sessions have been scheduled for Tuesday, Wednesday and Thursday mornings with topics of interest to every branch of the industry. (Times, places and programs for the home service and sectional meetings were carried in the September 1949 MONTHLY.)

In the interest of coordination, general sessions, Manufactured Gas, Natural Gas, and Accounting sessions and the Home Service Breakfast all will be held at the Palmer House. Technical Section meetings will be located at the Morrison Hotel. The Home Service Round-Table, Industrial and Commercial and Residential Gas Sections will meet at the Sherman Hotel. The Sherman will also serve as headquarters for the Gild of Ancient Suppliers.



## Utility financing study helps individual companies

◀ *Better balance between debt f*

How can the nation's gas and electric utilities best complete the raising of approximately \$12 billion, over a five-year period ending in 1953, to provide for necessary plant expansion?

New light is thrown on this subject by a joint financing study recently released by American Gas Association and Edison Electric Institute. A comprehensive review of past experience in raising funds during recent years, the report presents helpful suggestions to individual companies on improving investor relations and tapping new sources of equity funds. Recommended changes in SEC competitive bidding regulations are also featured.

Augmentation of the gas industry's plant, which occurred since the last war and is still proceeding, created the need for tremendous sums of capital, estimated, according to a recent A. G. A. survey at \$2 billion for the years 1945-1948 and \$2.77 billion for 1949-1952 inclusive. Financial requirements of this magnitude inevitably create problems, particularly if they occur when other utilities as well as industry in general are engaged in similar undertakings. Some of these problems are peculiar to the individual utility, while others are caused by the characteristics of the gas utility industry and are common to most of its members.

Confronted by these considerations and hopeful of assisting its members, the Association in the spring of 1948 decided on a comprehensive survey of the magnitude of the industry's construction program and the problems incident to providing the requisite funds. This work was sponsored by the Association's Committee on Economics and the A. G. A. Accounting Section, with a subcommittee of the former assuming major responsibility for the development and preparation of the study.

Because of a similar interest by the electric industry, it was also decided to develop this project as a joint study by the gas and electric utility industries of their capital financing problems, sponsored by American Gas Association and Edison Electric Institute, respectively. Since that time, individual committee

## debt financing is suggested for utilities' extensive construction program

members have worked diligently on a number of panel studies which, upon editing, became the several chapters of the published report; two meetings were also held with leading representatives from the banking, investment house, insurance, financial press and academic fields to obtain their suggestions and criticism of the work as it progressed. Edward M. Morehouse, vice-president, General Public Utilities Corp., and Harold H. Scaff, vice-president, Ebasco Services Inc., are co-chairmen of the committee which developed the detailed studies.

A copy of the completed report will be sent to each member company of the two associations, as well as to interested outside financial groups and regulatory authorities. The Association's Committee on Economics, which under the Chairmanship of Robert E. Ginna, vice-president, Rochester Gas and Electric Corp., assumed general responsibility for A. G. A.'s sponsorship of the publication, believes that the various suggestions contained in the report will be useful to companies confronted with security flotations. The committee emphasizes however that, while the suggestions and recommendations presented represent the considered consensus of a group of qualified individuals well versed in utility financing matters, the report is not to be construed as an official policy statement of either the gas or electric utility industries. Some of the report's highlights are as follows:

**Introduction**—The gas and electric utilities must raise approximately \$12 billion over a five-year period ending in 1953 to provide for plant expansion sufficient to meet growing demands.

Although utilities as a whole are in sound financial condition, they had not sought important amounts of new capital for the 15 years prior to 1946. Numerous problems arise in financing of this magnitude both for individual companies and for the industry as a whole. While a fairly good demand for bonds existed in recent years, the market for equity securities has not been encouraging. The result was a substantial decline in the percentage of new common stock

issues in relation to new debt issues.

This lack of balance between debt and equity financing has caused considerable concern not only to management but also to regulatory authorities. It has been due partly to an apathy on the part of individual investors, induced in some degree by their impression that earnings are too low or too uncertain, and to limitations on the investment of institutional funds. Moreover, in seeking new funds, the utility industry has during the last few years encountered severe competition from other industries. If gas and electric utilities are successful in maintaining the sound capital structures now in existence on the average by raising sufficient amounts of equity capital, the borrowing of debt capital in appropriate amounts from present sources of such funds should not be too difficult.

### Public relations

**Financial information program**—In order to undertake and conclude successfully the huge financing program now facing the utility industry, confidence in the industry, in the soundness of its capital structure and its future prospects must be instilled in stockholders and potential investors. This calls for a carefully planned financial public relations program to eliminate among investors any unwarranted fears or misconceptions about the industry and its prospects.

Stockholders should be reassured that earnings will not be diluted by the expansion program. Engineering advances in recent years in both the gas and electric utility industries, with resulting increased operating efficiencies, are among the items which can be stressed.

Growing recognition of regulatory bodies that rates must be such as to attract new capital should be explained to new investors. Fear of government competition and of high operating costs must be allayed by the development of factual material.

Various phases of the expansion program and of its benefits not only to investors but also to consumers should be advertised through national and local publicity channels. These channels in-

clude, in addition to local periodicals, national business publications, news syndicates, trade publications, radio and television outlets.

**Relations with investors, underwriters and dealers**—Many operating gas and electric utilities have been confronted recently with the new experience of making close acquaintance with investors, underwriters, and dealers. This was formerly of little or no concern to executives of these companies because parent holding companies largely assumed responsibility for the equity financing of their operating subsidiaries.

Now, however, companies only recently divested from holding company control, together with most other gas and electric utilities, are confronted with the problem of raising substantial amounts of money for new construction. Good relations with investors, underwriters and dealers are of paramount importance to the successful completion of these financing programs.

Good investor relations do not just happen; they have to be achieved. After that they must be maintained by unremitting attention. They are the means through which investor groups are convinced that a utility is a good investment risk.

Investors fall into two broad groups—institutional investors, and individual and other investors.

The first group consists of those who make investments their business and who purchase securities on a large scale, such as insurance companies, banks, trust companies, investment companies and similar institutions. These investors rely on their own staffs, the financial and statistical services, or consultants retained to supply them with detailed data on a company in whose securities they may be interested.

The individual investor group comprises people in all walks of life and interests. For the most part, their purchases of securities are limited to relatively small amounts. In the case of many companies, they are largely customers, employees, and residents of the area served. Their views on the company and their actions in regard to it can,

therefore, have an immediate and important bearing on the company's affairs.

The single most important medium available for informing all investor groups about a company is the annual report to stockholders. It is the medium through which the company can report fully on its contribution to the economy of the area it serves and can address its employees and customers. It is the place where management can and should po-

tential investors by illustrating the company's properties and territory. Movies and slides are also used.

Meetings should play an important part in investor relations programs. Groups with whom meetings are desirable include commercial bankers, investment bankers, institutional investors, investment counselors and security analysts, financial and statistical agencies, security dealers and brokers, and the financial press.



Robert E. Ginna, Rochester Gas & Electric Corp. (left), chairman, Committee on Economics which assumed general responsibility for A. G. A.'s sponsorship of the financing study, and Edward M. Morehouse, General Public Utilities Corp., A. G. A. chairman of the joint committee on the project



sent its case. In addition, interim reports which are particularly useful to analysts and investment bankers, should be sent to stockholders to keep current the important financial and operating data in the annual report.

Financial and statistical agencies send out their own questionnaires to be filled in by utilities. It is definitely in the company's interest to furnish the information required, as rating agencies play an important role in the cost of money to the utility.

An informational brochure can be utilized to supplement the annual report in times of financing. This special report will acquaint advisory services, as well as investment bankers, with operating and financial data which may be beyond the practical scope of either the annual report or the registration statement.

Another special report is what might be called the "picture book." Its purpose is to publicize activities and interest po-

Continuous personal contacts by a responsible officer of the utility represent the most effective method of keeping bankers and dealers informed of the company's status and of maintaining good relations with bankers, underwriters, and security dealers. Many checks have shown that a large proportion of individual security holders purchased their securities on the recommendation of either (1) their commercial banker, (2) a security dealer, or (3) on the advice of someone who was acting on the advice of one or the other of the first two.

Each company should analyze its own list of security owners to learn where it is already favorably known, and to gauge how broad a market should be covered for the amount of funds required. Only then can the company outline a program of banker and dealer contacts broad enough to accomplish the desired results.

**Earnings needed and allowed**—Adequate earnings are a prerequisite to successful equity financing. That is why the determination of requisite and allowable earnings is so important to the utility industry. The ability to obtain new money from common stock financing in amounts adequate to meet the requirements of the industry requires earnings at a level that will support the new equities at least as well as outstanding shares, considering the possible temporary dilution of earnings from new issues and the required price concessions to sell shares readily.

Utility stocks should be on a comparable earnings basis with industrial stocks after making appropriate allowances for variations in investor appeal. On an industry-wide basis, only a relatively small percentage increase in revenue would be required to improve the approximately 25 percent price disadvantage of utility common stocks compared with industrial stocks at currently demanded dividend or earning yields. Some improvement in investor regard for utility common stocks has occurred recently, according to many indexes, but the industry in general still lags behind many industrial stocks.

It would be helpful to the earnings picture if some regulatory bodies would bring their ideas of allowable earnings more closely in line with current conditions and act promptly on security issue applications. This would involve abandonment of rigid adherence to theoretical rate-base and rate of return theories and recognition of rate bases and rates of return yielding earnings that would attract capital now and in the future. These bodies could also help by re-examining their principles to give more recognition to the fact that rates are fixed for the future and not for the past. This would mean giving more weight to anticipated plan investments, as well as required earnings to support the new securities.

**Effect of competitive bidding**—It appears that Rule U-50 and Competitive Bidding are generally adapted to high and medium grade utility bonds. On investment grade bond issues of medium size (\$10 million to \$35 million), where no special factors complicate the situation and require no special sales effort, competitive bidding has been satisfactory.

On lower grade bonds, the experience under competi- (Continued on page 40)

# Gas company reports win industry "Oscars"

National recognition in the form of bronze "Oscar of Industry" awards will be presented this year to The Peoples Gas Light and Coke Co., Chicago, a repeat winner, and to Panhandle Eastern Pipe Line Co., Kansas City, Mo. for the best 1948 annual reports in the manufactured gas and natural gas industries. Presentation of the coveted trophies will be made at the Hotel Statler in New York City on Monday, October 31, by Financial World magazine, sponsor of the annual reports survey contest.

More than 4,000 annual reports from every part of the Western Hemisphere were submitted in the national survey, ninth in the series. Entries were judged in 100 industrial classifications for the "best of industry" awards.

Suburban Propane Gas Corp., Whippany, N. J. took second place honors in the manufactured gas category again this year, and Washington Gas Light Co., Washington, D. C., took third place. The Columbia Gas System, Inc., New York, N. Y. which won a bronze Oscar last year, was named second-place winner in the natural gas division, and Northern Natural Gas Co., Omaha, Neb., second-place winner last year, was judged third best.

In the building equipment category, Dresser Industries, Inc., a consistent winner of annual report Oscars, received second-place honors.

Leading reports by regions in the public utilities group included the following companies with gas interests:

**Canadian**—British Columbia Power Co.; **Eastern**—Philadelphia Co., Philadelphia, Pa.; Pennsylvania Power & Light Co., Allentown, Pa., and Philadelphia Electric Co., Philadelphia.

**Midwestern**—Union Electric Co., St. Louis, Mo.; Illinois Power Co., Belleville, Ill.; American Gas & Electric Co.;

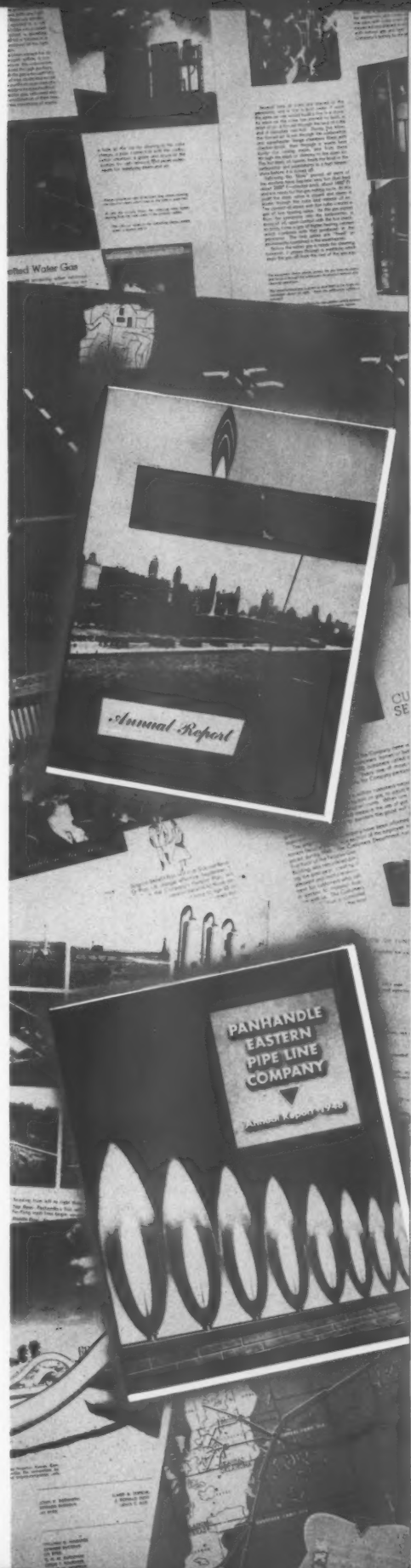
**Southern**—Florida Power Corp.; New Orleans Public Service Inc., New Orleans, La.; Arkansas Power & Light Co., Pine Bluff, Ark.; **Southwestern**—Electric Power & Light Corp., New York, N. Y.; **Western**—Citizens Utilities Corp., and Pacific Gas & Electric Co., San Francisco, California.

In addition to the first, second and third-place winners listed above, the following reports received "merit awards" in the manufactured gas and natural gas brackets:

**Manufactured gas**—The Brooklyn Union Gas Co., Brooklyn, N. Y.; The Hartford Gas Co., Hartford, Conn.; The Laclede Gas Light Co., St. Louis, Mo., which won third-place honors last year, and Providence Gas Co., Providence.

**Natural gas**—Consolidated Gas Utilities Corp., Oklahoma City, Okla.; Consolidated Natural Gas Co., New York, N. Y., past-winner of a bronze "Oscar of Industry" award; El Paso Natural Gas Co., El Paso, Texas; Houston Natural Gas Corp., Houston, Texas; Kansas-Nebbraska Natural Gas Co., Hastings, Neb.; Lone Star Gas Co., Dallas, Texas; Mobile Gas Service Corp., Mobile, Ala.; National Fuel Gas Co., New York, N. Y. awarded third-place last year, and Natural Gas Pipe Line Co. of America, Chicago, Illinois.

In order to qualify for merit awards, annual reports entered in the contest were required to meet all or a major portion of ten "essential requirements" for a modernized annual report. These requirements applied to the excellence of cover design, highlights page, table of contents, clarification of management duties, president's letter, reviews of company progress and development, income-outgo chart, simplified financial statement, background statistical comparisons, and stockholder information.





Santa Barbara: (Left to right) J. L. Hall, Southern California Gas Co. regional chairman; F. W. Williams, A. G. A.; Floyd S. Parmenter, Southern Counties Gas Co.; Ray Myers, American Stove Co.; two assistants; Yvonne Lewis; Caroline Gray; James I. Gorton, CP promotional director, GAMA

## Round Up gains record support

**A PAR activity** The gas industry's high-powered Old Stove Round Up is now in high gear! Ten regional pep-up meetings in every section of the country have raised interest in the drive to near fever pitch.

Gas company and dealer plans are pouring in to American Gas Association Promotion Bureau for local level participation in this greatest industry-wide campaign. Every conceivable promotional medium is being marshalled to replace millions of outdated and outmoded stoves with modern gas ranges.

Starting in Chicago on August 15, A. G. A. staff members directed seven more enthusiastic regional meetings to complete the current ten-meeting series of tie-in sessions throughout the country. Earlier regional meetings in Atlanta, Ga. and New York City were reported in the September MONTHLY.

On August 15, H. D. Valentine, The Peoples Gas Light and Coke Co., and cooperating members of the Association, unveiled Round Up plans for util-

ity and dealer representatives throughout Chicago and surrounding territory. The following day a similar meeting was held in Kansas City, Mo. under the chairmanship of George D. Wells, The Gas Service Company. On August 17, W. L. Hayes, Montana-Dakota Utilities Co., headed a fast-moving Round Up gathering on Eaton's Ranch near Minneapolis. J. O. Jackson, United Gas Corp., Houston, presided at the Fort Worth meeting on August 22; R. G. Barnett, Portland Gas & Coke Co., was chairman in Portland, Ore. on September 1; J. L. Hall, Southern California Gas Co., presided in the Santa Barbara area on September 6; Jack Hiller, Portland (Me.) Gas Light Co., and John Willis, chairman, sales division, New England Gas Association, set the pace in Boston, Mass. on September 12.

Early reports from four gas companies in different sections of the country show some of the numerous activities which are being planned to make the Round Up most effective and provide helpful hints to other companies

which are now mapping their programs.

In Hartford, Conn., a special Old Stove Round Up tie-in is planned for ten current motion pictures showing gas appliances. The Hartford Gas Company has arranged for local theaters to carry impressive lobby displays on the Round Up and to give away cowboy hats to the first 500 youngsters attending each daily show. In addition, the theaters will run a specially prepared trailer on the gas company's Old Stove Round Up campaign.

The Hartford Gas Company's contest requires entrants to register their names and the age of their stoves. In addition, each contestant must complete in 50 words or less the sentence "Smart cooks know gas is best because. . ." Entry blanks for the contest will be mailed by the gas company to all customers, and entries must be placed in Round Up deposit boxes either at the gas company or on the sales floors of 64 cooperating dealers.

In San Francisco, Calif., 1,500 dealers have been enlisted in the Round Up by



Portland (Ore.) songsters joining the band: (left to right) D. E. Alderman, J. A. H. Dodd, Warren Black, Jack Hutchins, Portland Gas & Coke Co.



Santa Barbara: Yvonne Lewis provides a glamorous touch to regional Round Up gathering which supplied powerful stimulus for local drives



Time out during Old Stove Round Up meeting in Kansas City: (left to right) Herbert C. Porter, Ray T. Ratliff, George D. Wells (regional chairman), Floyd M. Rosenkrans, J. G. Tooker, all of The Gas Service Co.



Minneapolis: Rope spinning by (left to right) A. H. Pfaff, Council Bluffs Gas Co.; Herbert Nelson, Northwestern Public Service Co.; Stan M. Johnson, Minnesota Valley Gas Co.; Robert Calrow, Minneapolis Gas Company



Fort Worth huddle between (left to right) C. H. Zachry, Southern Union Gas Co.; Ardmore Healy and Floyd Carmichal, Lone Star Gas Company. Mr. Carmichal administered "oath" for men given deputy sheriff badges. (Right) Santa Barbara vaquero rounds up an old stove





Fort Worth: Gas range display serves as the background for this group of manufacturer representatives. Program talks pointed out the need for salesmanship to keep business on a high level



Kansas City: Some of the manufacturer representatives who turned out in force for the Round Up meeting. Program included helpful information on promotions by utilities, manufacturers and dealers



Chicago meeting which briefed gas industry representatives on plans and possibilities of the Old Stove Round Up. H. D. Valentine, The Peoples Gas Light & Coke Co., served as regional chairman

Pacific Gas & Electric Corporation. Close coordination of dealers has been effected by this non-merchandising company through its dealer-manufacturer-utility organization, the Gas Appliance Society of California.

Ten thousand dollars in cash prizes are being offered for the oldest stoves turned in during the campaign upon purchase of a new gas range by each contestant. Prizes are also offered for the oldest stoves registered in the contest but not traded in and on the newest stoves traded in for the purchase of modern gas ranges. Additional prizes are offered for salesmen and for winners in a window display contest.

In Minneapolis, Minn. the Round Up campaign has been seized as an opportunity for making a complete survey of the age of gas ranges now on the lines of Minneapolis Gas Company. Heavy emphasis is being placed upon the preparation of a complete list of prospects which will be useful for several years to come. When completed the lists will be made available to all cooperating dealers in the gas company's territory.

In Brooklyn, N. Y. close liaison on the Round Up has been accomplished between The Brooklyn Union Gas Company and 1,100 dealers. Special features of the utility's campaign include a broad newspaper advertising schedule and a sales lead plan for company employees.

(One of The Brooklyn Union Gas Company's current newspaper advertisements on the Round Up is reproduced on the inside front cover.)

A particularly significant fact noticeable in Round Up activities to date is the enthusiastic cooperation of thousands of gas range dealers. Many dealers have already run full-page newspaper advertisements of their own on the Old Stove Round Up. One dealer in Texas became so enthused about the campaign that he decided to sponsor his own county-wide campaign. His promotions include a Round Up parade, use of an airplane towing an advertising message on the Round Up, a chuck wagon demonstration and other spectacular uses.

The plans mentioned in this article have been selected at random to show that, coast-to-coast the Old Stove Round Up has captured the imagination and enthusiasm of the entire gas industry. More information and other pictures of the Round Up meetings appear this month in the Residential Gas Section.

Research develops fundamental data on  
design and application of pilot burner flames

# "Inside story" of pilot burners

By L. J. KANE

Research Engineer  
A.G.A. Testing Laboratories

**A PAR activity** Can pilot lights be made more reliable? What are the prospects for materially reducing the heat given off by pilots and thus reducing stove temperatures? Can the life of pilot burners be extended? To what extent can service calls on pilots be reduced? These are some of the questions American Gas Association's Committee on Domestic Gas Research has been striving to answer.

Study of the design, construction and performance of automatic pilots constitutes one of the many important ignition projects being explored by the committee under the PAR Plan. This particular project has as its objective the securing of fundamental knowledge of the design and application of pilot burner flames to gas appliances. Much valuable information has already been obtained from work completed and more is being developed as the result of work now in progress.

The first of a series of technical reports on this investigation has been published by A.G.A. Testing Laboratories as Research Report 1123-A, Research in Pilot Design, Construction and Performance (\$1.25 a copy). Previous bulletins on bimetallic thermal elements (Bulletin 42, \$1.75 a copy) and prevention of closure of pilot burner primary air openings by dust and lint (Bulletin 46, \$1.75 a copy) likewise contain valuable and helpful information. In progress are studies expanding present knowledge of primary air injection, lifting, yellow tip and flashback characteristics of pilot burners operating on both natural and manufactured gases.

The initial report on the present work

not only charts the fundamentals of pilot design but includes a careful review of those points which have been found by experience to be important to good design and construction for effective performance under practical operating conditions. Accompanying exploratory laboratory work was undertaken over a wide range of operating conditions to include those apt to produce flame outages and stoppage of gas-ways.

A total of 33 pilots of both the aerated and non-aerated type were studied. Standard pilots in 12 contemporary appliances also were observed, including their use in two conversion burners, a unit heater and a forced air furnace. Laboratories-manufactured test gas was used for most of the studies. To supply unsaturated hydrocarbon content, commercial propylene was added.

Life tests on the pilots were conducted

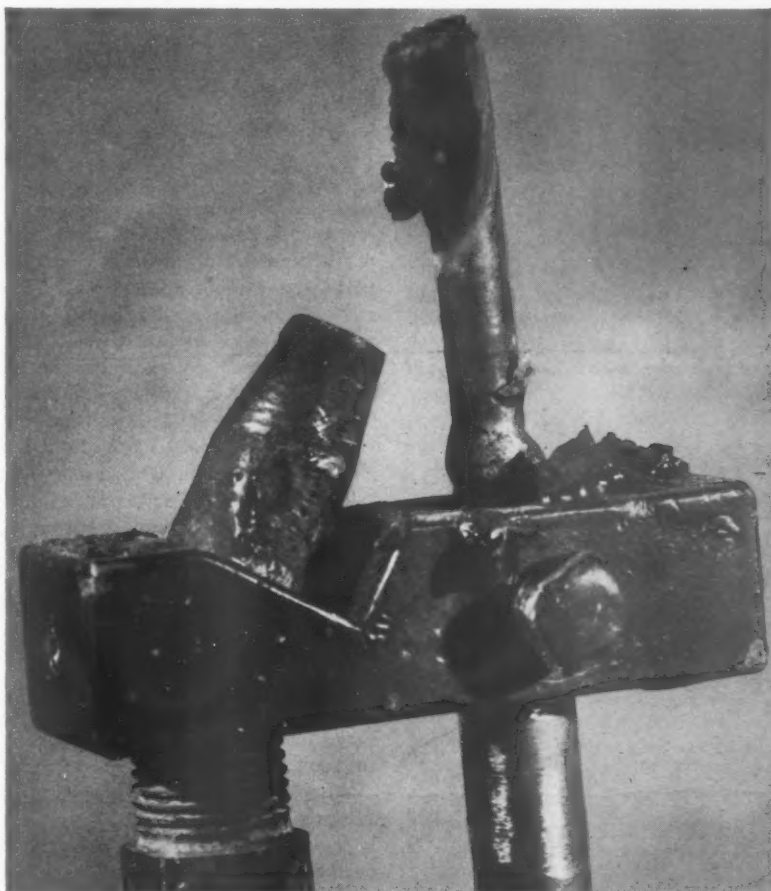


Figure 1. Close-up taken during A. G. A. Testing Laboratories study, showing hard carbon deposited by a yellow-tipped flame impinging on the thermal element of an automatic pilot mechanism

by operating them in a radiant type test oven. This oven was heated by two small space heater burners, mounted under a row of fire clay radiants facing toward the center of the oven where the pilots were installed. Each burner had a maximum input rating of approximately 25,000 Btu per hour. In order to accelerate stoppage the ambient or surrounding temperatures employed around the pilots in the oven were higher than

the average usually found in appliances.

On the whole the information obtained indicates that the trend in appliance design should be toward obtaining minimum pilot burner operating temperatures, and that it would be desirable to hold to a minimum the content of easily cracked hydrocarbons in the gas supply. Few, if any, pilot burner operating problems may be expected under conditions of relatively low burner temperature, below 500 degrees F.

Since flame outages and stoppage of gasways occur more rapidly as temperature is increased, particularly with use of fuels containing illuminants or easily cracked hydrocarbons, it appears desirable to install pilots and to protect them so that their temperatures will remain below 500 F if they are to be used in manufactured gas territories. Tests of contemporary appliances indicated a wide range of pilot temperatures ranging from a minimum of 270 F at the orifice to a maximum of about 1200 F at some of the ports. It was specifically noted that maximum pilot burner temperatures attained in some space heating installations either approached or exceeded the critical temperature of 500 F.

Four major causes of pilot burner stoppage were found: carbon deposits, copper scale dislodged from tubing, zinc oxide deposited from brass tubing or parts, and iron oxide deposits. Thus materials of construction of the pilot and connecting tubing also were found to play an important role in the over-all design of a unit for a particular purpose.

The hard carbon deposit resulting from a yellow tipped flame impinging on the thermal element of an automatic pilot is shown in Figure 1. The pilot, a non-aerated type, was operated on a manufactured gas containing 5.0 percent propylene. The deposit shown was built up after 1,336 hours of continuous operation. Although field experience has indicated that pilot flames may be deflected from the thermal element by such a build-up with the insulating effect preventing the element from generating sufficient millivoltage to energize the pilot mechanism, the millivoltage in this instance remained at about 25 mv. It is obvious, however, that such a deposit would alter the "time on" and "time off" cycles of the pilot.

General effect of ambient temperature

on millivoltage developed by thermoelectric type devices is shown in Figure 2. Note that an increase in ambient temperature, particularly around the burner and cold junction, temporarily lowers both the input rate to the pilot and the millivoltage generated. In this instance manufactured gas free of unsaturated hydrocarbons was employed. This result indicates that care must be exercised to provide for satisfactory operation of the automatic pilot mechanism at the ambient temperature to be encountered in practice.

The effect of materials of construction is illustrated in Figure 3. Stainless steel, brass and iron pilots were compared when subjected to an average ambient temperature of 680 F and burning manufactured gas containing 8.5 percent propylene. The stainless steel pilot burned three times as long as the brass pilot and ten times as long as the iron pilot. Stoppage occurred at the orifice in each instance. The stainless steel pilot failed due to carbon, the brass pilot due to zinc oxide, and the iron pilot due to iron oxide. Another cause of plugging was found to be copper oxide scale which in some instances flaked off the tubing immediately ahead of the orifice when tubing was also subject to heat.

## Temperature factor

Since ambient temperature was found to be such a vital factor in pilot design, it is proposed to study more fully the design and location of pilots with respect to main burners, including methods of shielding and protecting pilots from excessive heat. Other phases could include investigation of the use of ceramic burners and ceramic burner tips and the presence of sulfur in the gas. Another phase might concern itself with a study of materials that would inhibit or at least not catalyze the formation of carbon.

The progress of this research, presently being devoted to design factors influencing primary air injection, lifting, yellow tip and flashback of pilot burners, is being closely followed by A.G.A. Technical Advisory Group for General Utilization Research, W. R. Hainsworth, chairman. The project is being conducted at A.G.A. Testing Laboratories and is sponsored by Committee on Domestic Gas Research. As further progress is made additional information on completed phases of the investigation will be published.

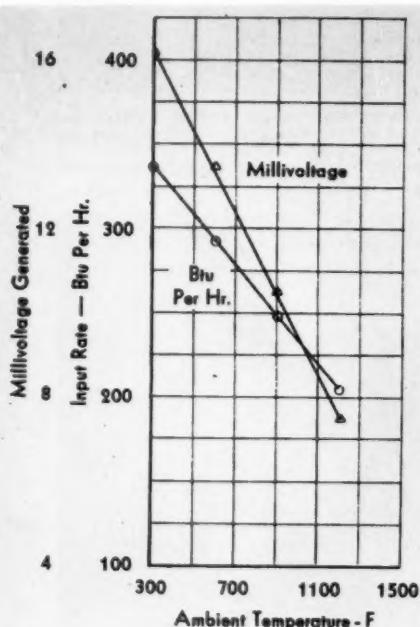


Figure 2. Effect of ambient temperature on the input rate and the millivoltage generated

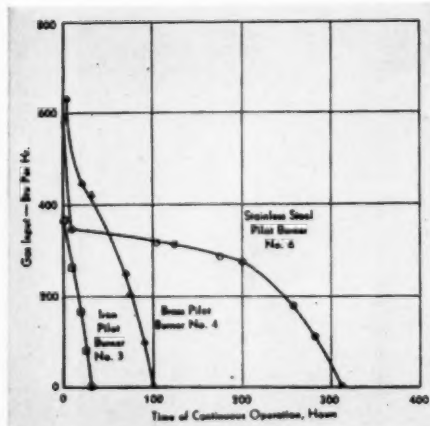


Figure 3. Outage curves for different pilot burners at 680° F and burning manufactured gas of a high unsaturated hydrocarbon content

# Progress in gas water heating



BY H. D. HEWEY

Sales Manager  
Illinois Power Co.  
Decatur, Ill.

Back in 1939 a change in management of Illinois Power Co., a Midwest utility, provided the background for one of the most successful automatic gas water heater campaigns in the history of the industry.

The new management very quickly discovered that, as a combination gas and electric utility, the thinking of previous management had been directed almost exclusively towards the development of the electric portion of the business, despite a very large investment in gas. One of the first things the new president, Allen Van Wyck, ordered was that something be done about gas revenues. At that time, Illinois Power net income from gas operations was practically non-existent.

Illinois Power Company serves natural gas to 50 communities in Illinois with a present total of 115,000 residential meters. These communities vary in size from towns of 200 customers to cities with 20,000 customers, and are scattered over the state. Such a scattering of properties naturally introduces varied problems in promotion efforts as well as in engineering and distribution operations.

The first step taken by the company in its endeavor to build up gas revenue was a customer survey which indicated a very low average consumption of gas by residential customers. A house-to-house canvass was made which determined, among other information, the fuel used for cooking and water heating, together with information as to the type of water heaters used among those customers who did heat water with gas.

This survey covered an actual count in 95 percent of the homes. It was painstakingly made by carefully schooled meter readers.

Breaking down that portion of the survey relating to water heating, it was found that despite the use of gas to heat water by 44 percent of the customers, only 4.3 percent were heating with automatic storage gas water heaters. Most customers were using side-arm heaters, the bulk of which were old and giving poor service, resulting in very little use and therefore very little gas consumption. A few customers used instantaneous gas water heaters.

Inquiry among neighboring utilities that had for years promoted gas water heating sales revealed saturations of automatic storage heaters varying from 40 percent to as high as 60 percent.

Thus, there appeared to be but one logical answer to the problem of increas-

ing residential gas revenues, and that was through an increased saturation of automatic gas water heaters.

To bring Illinois Power saturation up to at least the minimum of other utilities required the addition of about 35,000 heaters. Management wanted the job done within five years. Consequently an intensive study was made of previously tried methods by other utilities to determine the quickest and most effective plan.

Practically no appliance dealers carried automatic water heaters in stock as they seemed to regard this phase of the business as a plumber activity. The possible use of a plumber cooperative plan was considered, but it was discovered that even in the larger communities, few plumbers did any active selling. Practically none employed salesmen, and the very few automatic water heaters sold were usually purchased by customer for installation in new homes.

The situation finally resolved itself into one demanding that, if an effective activity was to be carried on, it would be necessary for the company to do the job itself.

The next step was selection of a plan. A free trial offer in which the customer was privileged to return the water heater if unsatisfactory at the end of 90 days' use, accomplished very little in a spot offering and was dropped. After considerable deliberation, a rental-purchase plan was adopted and inaugurated in the spring of 1941. Under this plan the customer paid \$1.20 per month for the rental of one of the better makes of automatic water heaters. If at any time the customer desired to purchase the heater, he was allowed \$1.00 per month of the \$1.20 he had paid in as credit towards its purchase.

From the start, however, the plan did not accomplish the desired results. Offered a choice of either outright purchase or installation on the rental-purchase plan, more customers chose the outright purchase. At no time did the combined sales and rental-purchase step up to the point where previously established quotas might be reached.

At this time a decision was made to offer the heater at the lowest possible amount per month on a straight rental plan, discarding the rental purchase plan. In September the company turned to a straight rental program at 60 cents per month, for a "family size" heater.

Immediately things began to happen. Rentals under the new plan soared so that installations were being made at a

rate about seven times greater per week than had been installed under the rental-purchase plan. The accompanying graph illustrates this acceleration.

This upswing proved that *lowest possible monthly cost* was the key to volume water heater installations. Seemingly, "pride of ownership" did not enter greatly into the hot water picture, probably because installations were usually in out-of-sight points in the basement.

As a result of the tremendous acceptance of the straight rental plan in the last four months of the year, Illinois Power exceeded its first year quota with installations of 4,181 heaters, despite the fact that less than one-quarter of the quota had been realized previous to September. The activity was continued until February 15, 1942, when water heaters became unobtainable.

## Cook's the thing!

● "Sometimes a thing can be too good," advises an advertising brochure for the American Gas Association.

The association points out that a fourth of the gas ranges in use in the United States today are more than 15 years old, and that half of them are more than ten years old.

The point with the association, of course, is that it is high time the brides of ten and 15 years ago are getting new gas ranges. They should be fully informed, thinks the association, that modern gas cooking gadgets burn automatically without the use of matches, that they are equipped with "smokeless" broilers, automatic controls, etc., etc., etc.

So much for the machinery of cooking. What of the little lady whose husband bought the clumsy range of ten or 15 years ago?

Those were the days when she could be set in motion automatically without the use of matches, days when she was cooking on the front-burner and when neither wedded bliss nor blister was a matter for thermostatic control.

Where once smoked the stove of yesterday burned clean and sweet its mistress' personal flame of being. Today's stove does not smoke but mama smokes, yea, like unto the signal smoulder of the redman she smokes, and smokes and smokes.

And as for pappy, what matter?

He eats what he can get and drinks what he can get by with.

He swapped his grand future for a gland future long ago.

Not even the gas association pretends to get the bum back on the beam.

Progress totes a two-edged sword!

—Salisbury, N. C. Post.

At the conclusion of the war, the program was immediately resumed, even though water heaters were not completely available. It was at this stage of the program that plumbers began to appreciate the growing acceptance for automatic gas water heating and became somewhat active in sales efforts.

During 1947, Illinois Power was able to obtain and install 6,183 heaters. Throughout the year many problems presented themselves. Chief among them was resistance by certain plumbers to the rental activity. Because of increasing customer acceptance, it was only natural that some plumbers who had become sales conscious (still without benefit of salesmen) were not completely in sympathy with the rental program. In some areas plumbers refused to install heaters. In other areas they demanded a percentage of the list price of the heater before making an installation.

It took considerable persuasion to convince them that, pursued to its ultimate goal, the rental activity would develop acceptance to the point where an automatic gas water heater would become a necessity in the modern home. However, there were enough plumbers in each community who were far-sighted enough, and who could see a greater immediate financial return through installing the large numbers of heaters for the company to carry on the program.

During 1947 and 1948 the amount of the monthly rental was increased as excise taxes, increasing installation costs and higher manufacturing costs occurred, reaching \$1.15 per month for the 15-gallon heater and \$1.40 for the 30-gallon size. The increased rental did not slow up the activity.

In 1948 automatic gas water heaters became almost completely available, and Illinois Power activity reached its peak. The only limit to the number of heaters placed in customers homes was the ability of installers to get them hooked up. At times, customers' orders were 1,000 ahead of installations. This lag was so great that some plumbers were actually persuaded to discard the previously-installed-upon threaded pipe installation in favor of a saddle-tee and copper tubing method. Result—speedier installation; lower costs; better customer service.

The year ended with rentals of 15,808 gas water heaters by Illinois Power, plus an estimated 2,000 heaters sold by plumbers, totaling an increase of almost 20 percent in gas water heater saturation. This was double the quota

originally set for the third year of the five-year program.

Did the rental program pay? The answer can be seen in Illinois Power Company's 1948 annual report. Residential gas operating revenues (not including residential space heating) rose from \$2,882,000 in 1947 (they were \$2,151,371 in 1940) to \$3,270,052 during 1948—an increase of \$388,000. The full effect of the 1948 activity will be apparent during 1949.

Here are some highlights of the plan.

(1) A non-ferrous tanked heater was used because of varying water conditions and because of the expectation that many customers would continue renting the heaters indefinitely. Two sizes were offered—a 15-gallon size and a 30-gallon size. About 75 percent of the installations were of the 15-gallon size. As evidence of their ability to supply sufficient hot water in *single family, one bath* residences, less than five percent were exchanged for the larger size. The customer was given the privilege of exchanging at any time by paying only the slightly larger rental for the larger heater.

(2) The monthly rental was determined upon by adding all costs, which were totaled and divided by the number of months within which it was desired to amortize the installation. These included the cost of heater, installation, interest on investment computed over amortization period on a reducing balance, anticipated service costs, additional accounting expense, salesman's commission and advertising. This activity was designed to stand entirely on its own feet and pay out all costs from rental payments.

(3) Cost of the campaign was financed from company funds, although financing could probably have been arranged through banks.

(4) The average increased consumption amounted to 98 therms per customer the first year after installation, as determined by a study of 500 customer billings. After the heater had been installed two years this increase amounted to 155 therms per year among the same customers. This later increase was undoubtedly due to greater use as customers weighed convenience against low cost.

(5) Due to excellent diversity, the installation of this large number of heaters did not necessitate increasing the size of distribution facilities or require use of additional manpower. In fact, about the only new cost chargeable to operations was the incremental cost of gas.

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## Bonus plan for meter reading

By A. L. ADAMS

*Comptroller, Metropolitan  
Utilities District of Omaha  
Omaha, Nebraska*

A REVIEW of our meter reading practices was started following receipt of a petition signed by meter readers requesting a much higher progressive monthly wage scale and discontinuance of the additional premium pay or bonus plan which had been in effect for some years.

Of course, a request for higher wage rates is nothing unusual. However, it was surprising that meter readers would request elimination of a plan which had provided extra monthly pay averaging \$4.50 for all meter readers and on occasions had exceeded \$30 for some individuals. Since meter readers, more than any other group of utility employees, work on their own out of supervisors' sight, the management felt very reluctant about abolishing the bonus plan which had provided at least some incentive towards the quantity and quality of individual work.

Every utility has some peculiar characteristics, so for other utilities desiring to make any comparisons, some general information regarding the Omaha utility

plan may be helpful. The Metropolitan Utilities District of Omaha is a separately chartered municipal corporation created to manage the water, gas and ice utility properties owned by the City of Omaha within the corporate limits of the city proper and adjacent suburban areas. The district serves a population of some 275,000 and has 61,000 water and gas customers in an area of 44 square miles extending 11 miles from north to south and six miles from low ground along the Missouri river on the east through a central industrial and business district at intermediate levels to rolling hills 100 to 250 feet above river level, comprising the bulk of the city area towards the west.

Municipal ownership does not materially affect the basic plan of operation. The management and accounts of the district are completely separated from those of the city proper. The district does not pay social security taxes but has a comprehensive employee benefits plan. Though not subject to the Wages and Hours Law, it follows rules accomplishing similar results.

For electric utilities, the increasing use of outside meters reduces the number of missed readings. For water utilities, location of meters in outside boxes is helpful under favorable weather conditions but when these pits are filled or covered with snow, water, mud or ice, the meter reader has a difficult or impossible job.: The builder of one new Omaha home provided a special basement window through which the gas meter may be read. Our readers hope

that other builders will follow this example and have suggested that with every slight changes in location several other meters could be read from the outside through existing windows.

*Practices of other utilities*—American Gas Association headquarters and individual members were very cooperative in supplying information as to rules and practices of other utilities. Without having made any general survey of all gas utilities, it appears that many provide bonuses or pay adjustments varied according to numbers of meters assigned, read, and errors made. Several provided standard numbers of readings per day, with lower requirements for suburban areas. A few plans involve relatively complex calculations of walking distance, meters per mile, etc.

*Previous bonus plan*—Under existing progressive wage scale the starting base pay rate for meter readers is increased 32.5 percent after three years service. In addition, our previous gas meter reading bonus plan allowed premiums for readings in excess of 155 per day increasing from two cents per reading, when skips were less than 15 percent, to five cents per reading when skips were below 11 percent, with ten readings deducted for each error in excess of two in any one month. Such premiums were allowed for ordinary route reading, excluding a few special industrial routes and suburban routes requiring automobiles and re-reads and skip-reading.

The petition of the meter readers stated their belief that the existing plan

Prepared at the request of Personnel Committee, American Gas Association.  
See also "Plan for Meter Readers," Arthur G. Burnett (A. G. A. MONTHLY, January 1948, p. 31); "Testing for Meter Readers," (A. G. A. MONTHLY, December 1948, p. 15).

	1948 Average Numbers of Meters			Percent Skipped
	Route Total	Read	Skipped	
Average For All Ordinary Routes	199	169	30	15.1
Minimum Required for Bonus		155		15.0
Averages For Specific Routes:				
Route No.	General Description of Territory			
273	Only route in the city including apartment houses almost exclusively			
	578	567	11	1.9
410	Older residences and apartments, lower income families			
	272	255	17	6.3
400	Retail businesses, apartments and rooming houses, low income families			
	247	244	3	1.2
121	Medium age residences and apartments, upper income families			
	211	177	34	16.1
82	Older residences and apartments, low income families, mostly colored			
	207	160	47	22.7
293	Older residences, lower middle income families			
	188	162	26	13.8
344	Newer residences, no apartments, thinly settled, upper income families			
	188	139	49	26.1
52	Newer residences, no apartments, sparsely settled, upper middle income families			
	177	136	41	23.2
384	Newer small residences of middle income families, on outskirts of city			
	171	129	42	24.6

was "detrimental rather than helpful . . . had not brought any betterment in the percentage of errors . . . that the real effect is to incite new men to estimate readings and to be over-zealous about getting into customers' homes without authority."

The meter readers' committee did not press these contentions in conference. They did bring out a different objection, that a reader might get a lot of excess readings early in a month and then lose all the benefit by reason of being assigned a few difficult routes which would

raise the skip percentage above the 15 percent maximum allowable for any premium pay.

*Average meter reading performance and performance for specific routes*—In 1948 the district had 304 ordinary gas meter reading routes, of which only 15 routes included more than 250 meters and only four included less than 160 meters. Average performance for all routes in 1948 appeared reasonable in relation to minimum requirements under the old bonus plan but variations from the over-all average were substantial as shown by the examples below:

*Meter reading costs*—Analysis of the gas meter reading operating expense account for 1948 disclosed the following unit costs:

Ordinary route reading pay roll costs	.056 per meter read
Skip reading, re-reading and special route reading pay roll costs	.152 per meter read
Skip reading pay roll costs	.096 per meter assigned
All costs of field work for all readings including pay roll, carfare, auto expense, uniforms and supplies	.075 per meter read
All costs including office supervision but excluding employees' benefits (9.8 percent of pay rolls), office quarters and general administration	.094 per meter read

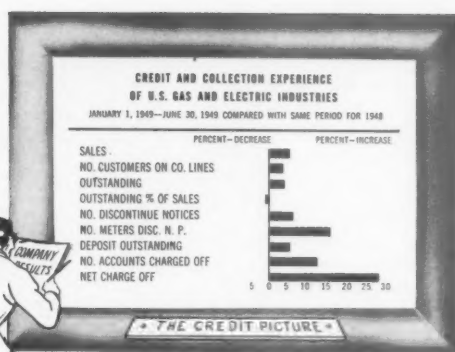
*Factors considered in arranging new plan*—The high skip percentages shown on the preceding table for routes 82, 344, 54 and 384 justify the meter readers' claim that it was practically impossible to earn a bonus when assigned routes of these types. (They did not mention the easy bonus routes such as 273, 410 and 400). Bonus opportunities might be equalized over a year's time by a strict plan of rotation, and some rotation may be desirable as protection against fraudulent collusion with customers. On the other hand, this would involve more complicated route assignment records and would prevent possible increased efficiency from readers' familiarity with territories and people on particular routes gained by repeat assignments. To provide effective incentives it appeared necessary to reduce variations in bonus opportunities by some sort of standards based on the characteristics of specific routes.

Among the important features affecting meter reading performance, the number of meters on a route is the easiest to measure. Miles of walking and other travel involves more complex calculations and estimates which can be made if desired. From the illustrations given, it is evident that the number of apartment house customers as compared with the number of single family dwelling customers has an important bearing on the number of meters which can be read in a day, but even with apartments, the number of meters located at one place varies.

None of these factors account for the difference between the skip ratio of 13.8 percent shown for route 293 and the 26.1 percent ratio shown for route 344, both routes having the same number of customers with few if any multi-family dwelling units. The only readily available standard which would give weight to all these factors including intangibles as well as tangibles, appeared to be average performance on individual routes for a full year's time.

*Allowance made for variations in readings skipped*—One thing in addition to errors which a meter reader may control in part by greater care or more work is the number of readings missed. He cannot get into a locked house without a key and special authority. He may, however, wait a trifle longer for a slow response to his (Continued on page 42)

# News from the credit picture



Dollar sales of the gas and electric industry showed another substantial increase in all sections of the country during the first half of 1949. This and other pertinent facts are shown in the latest study of the credit and collection picture, completed under the direction of H. D. Amann, The Brooklyn Union Gas Company.

Collection results under this continuous, semi-annual project have been received from 50 out of 65 gas, electric and combination companies—an even greater return than in the previous survey. The cooperating companies represent a fair cross-country sample

located in the nine census regions commonly used by industries for statistical purposes. As far as was practicable an equal number of companies were selected from the nine geographic regions of the country.

The latest six-month survey shows that rate increases had less of an effect on the results than in the report for the preceding six-month period (A.G.A. MONTHLY, May 1949, p. 19). However, one large company in the Middle Atlantic area was subject to a rate decrease which adversely affected that area.

The gas and electric industry con-

tinues to show a gain in the number of customers connected to company lines in all sections of the country, with the South and the West again setting the pace.

Outstanding has increased in all except the Middle Atlantic area where one large company increased its collection tempo in an effort to offset a rapid increase in net charge off. The outstanding in percent of sales indicates a downward movement in all sections except West South Central area which again exhibits an increase.

Number of (Continued on page 24)

## REFLECTION OF THE CREDIT AND COLLECTION EXPERIENCE OF THE GAS AND ELECTRIC INDUSTRIES

(JANUARY 1, 1949—JUNE 30, 1949) • PERCENT—INCREASE OR DECREASE OVER CORRESPONDING PERIOD—1948

	NEW ENGLAND	MID. ATLANTIC	EAST NORTH CENTRAL	WEST NORTH CENTRAL	SOUTH ATLANTIC	EAST SOUTH CENTRAL	WEST SOUTH CENTRAL	MOUNTAIN STATES	PACIFIC STATES	UNITED STATES TOTALS
SALES	+ 5.3	+ 1.6	+ 6.5	+ 9.3	+ 10.3	+ 7.2	+ 3.7	+ 14.2	+ 9.8	+ 6.4
NO. CUSTOMERS ON CO. LINES	+ 2.6	+ 1.8	+ 2.2	+ 3.1	+ 7.5	+ 7.9	+ 6.4	+ 6.1	+ 6.4	+ 4.1
OUTSTANDING	+ 5.2	- 1.1	+ 6.2	+ 3.1	+ 7.9	+ 7.2	+ 11.5	+ 7.0	+ 7.9	+ 4.7
OUTSTANDING % OF SALES	- 0.1	- 2.6	- 0.2	- 5.7	- 2.3	a	+ 7.6	- 6.3	- 1.7	- 1.6
NO. DISCONTINUE NOTICES	- 6.1	+ 6.6	+ 24.7	- 6.1	+ 4.7	- 1.9	+ 5.3	- 22.0	+ 25.8	+ 7.2
NO. METERS DISC. N. P.	+ 17.9	+ 8.4	+ 27.2	+ 36.9	+ 23.8	+ 19.8	+ 22.4	+ 49.8	+ 13.5	+ 16.2
DEPOSIT OUTSTANDING	+ 1.1	+ 6.1	- 8.8	+ 6.7	+ 14.3	+ 8.6	+ 6.8	- 0.1	+ 4.0	+ 6.4
NO. ACCOUNTS CHARGED OFF	+ 20.6	- 4.1	+ 6.8	- 13.8	+ 21.5	+ 38.0	+ 31.3	+ 44.0	+ 27.6	+ 13.0
NET CHARGE OFF	+ 17.9	+ 28.6	+ 25.1	- 4.8	+ 40.9	+ 11.4	+ 37.0	+ 81.5	+ 22.1	+ 28.1

a less than .05 percent



## On-the-job with home service

A growing trend toward on-the-job training dominates the home service picture as gas companies ready their staffs for 1950. Particularly evident in companies maintaining home service departments which operate over large areas, this type of intensive training is playing an important role in establishing the individual home service representative as a recognized authority in her community.

Fall training courses of the on-the-job type are proving especially valuable in bringing home service personnel up-to-date on their company activities. Entire departments are being briefed and trained on company operation, policies and sales activities—with a resultant saving in time and energy.

Capsule courses for department members often include demonstrations, skits, round-table discussions, showings of new gas equipment by manufacturer representatives, service supervisor dem-

onstrations on installation practices, encouragement and comments by company management, and whenever possible, talks by outside speakers on food and equipment. This practical emphasis is making home service an increasingly important servant to the community and its gas company customers.

Reports on late August and September activities in Kansas City, Mo., Columbus and Cleveland, Ohio, Los Angeles, and from the Southern Gas Association provide a cross-country picture of what is "in the air" for next year.

The Gas Service Company in Kansas City is concentrating on training home service apprentices. For the third year, a training course for new members of the department has been supplemented with an on-the-job course for apprentices, largely college juniors in home economics interested in the possibility of home service as a career.

A group of 85 home service people attending a Kansas City conference, August 23-25, included 23 apprentices from 11 colleges in and around the company's territory. F. M. Rosenkrans, new business manager, was assisted during the summer by a college consultant, Elsie Lee Miller, assistant professor of foods and nutrition at Kansas State College.

As a program opener, Mrs. Mary Louise Bohn, home service director, The Laclede Gas Light Co., St. Louis, pointed up the opportunities and advantages of home service participation in community professional contacts. College representatives appearing on the program discussed frozen food news and kitchen planning.

Professional writing, a topic of inherent interest, was probed in detail by Lucille Smith, rural home editor, Capper's Farmer. F. X. Mettenet, vice-president, The Peoples Gas Light and

Coke Co., Chicago, outlined some helpful management views of home service. A skit for school classes by members of the Hutchinson, Kan. department, and a demonstration by representatives at Joplin, Mo. gave added depth to the program.

Equipment presentations also drew attention. J. G. Tooker, new business manager, The Gas Service Co., described fundamentals of automatic gas water heating and E. Carl Sorby, Geo. D. Roper Corp., Rockford, Ill., painted several "portraits in cooking." A series of dramatic charts comparing the relative features of gas and electric ranges were utilized by Ray T. Ratliff, advertising manager, The Gas Service Company. Talks by Mary Huck, The Ohio Fuel Gas Co., on home calls and by Jessie McQueen, home service counselor, American Gas Association, on the flexibility of home service, climaxed a productive training conference.

The big job at The Ohio Fuel Gas Company in Columbus is promoting theater cooking schools. Special teacher dinners will be held in each district by this 50-person department under the direction of Mary Huck in Columbus.

Regular school programs in Columbus will center around demonstrations on care and use of equipment and talks on kitchen planning for home economics classes. The club program—a choice of lecture demonstrations for clubs in the community—will get under way in November and continue through the year. Close working cooperation has been established with dealers in all areas served by the company.

Club programs will feature demonstrations for salesmen on cooking with gas, as well as sales-slanted demonstrations for dealer prospects. Plans are "in the mill" for increased employee training in the company itself—probably as talks and demonstrations on home service personnel. With a large proportion of the department new to home service, an on-the-job course and miscellaneous request activities will be added to the regular program.

An important part of the 1949 home service training course held in Columbus August 30 to September 1 was a preview of the 1950 Gasco Food Institute, or regional theater cooking schools. Company representatives contributed heavily to the meetings. W. N. Grinstead, vice-president, explained management's expectations re-

garding home service work; J. E. Humphreys, business promotion manager, outlined the new school program, while J. G. Berwanger, dealer promotion manager, reported plans for dealer promotion.

Equipment presentations at the training course included a demonstration by Allen Barnhart, Cribben & Sexton Co., a laundering research project by Dr. Elaine Weaver, Ohio State University, and a talk on training for home service by Daisy Davis, Ohio State University.

"What's New in Electric Ranges," by Lolita Harper, home service department, The Cincinnati Gas and Electric Co., was an interesting comparison with latest developments in gas ranges. Three home service presentations by members of The Ohio Fuel Gas Company's home service department highlighted the importance of home service work with dealers, the place of home service in public relations, and "your files." Eleanor Morrison, chairman, A. G. A. Home Service Committee and home service director, Michigan Consolidated Gas Co., described the school contact program as the important activity in school service work.

"Everyone in the game" might be called the slogan for home service ac-

tivities under way at Southern Counties Gas Co., Los Angeles, California. The company's annual training event this year was focused on lecture demonstration techniques, including "care and use" work for school programs and "step and time-saving" activities in club and cooking school presentations. Fourteen home service representatives under the direction of Katherine Rathbone, attended the course, along with the division sales supervisor, vice-president in charge of sales and public relations, and respective division managers.

Southern Counties Gas Company's 1949-50 program will cover dessert benefit activities for club groups, dealer home service participation, greeting letters for new consumers, school dinners for teachers and school administrators, and home service classes for gas appliance salesmen. Each of these fields was analyzed by different members of the department, together with a discussion session on a home service procedure handbook which is now in preparation. Equipment presentations included a demonstration by Mr. and Mrs. Irving Burg, Gaffers & Sattler, on deep broiler barbecuing.

A special (Continued on page 36)



Scout cooking class (above) sponsored by Southern Counties Gas Company. Photo on preceding page shows a recipe testing activity in the auditorium kitchen at Southern California Gas Co., Los Angeles

*Plant visits can help  
merchandise the  
true story of industry*



## High cost of economic ignorance

By L. E. PURVIS<sup>1</sup>

*Opinion Research Corp.  
Princeton, N. J.*

In June 1946, we prepared our first study on collectivism to demonstrate the great ideological distance between the front office and the shop. In August 1947, we prepared a second study on collectivist ideology, dealing with the role of job dissatisfaction and economic ignorance.

First, we made a national census of job satisfaction by getting workers to rate their jobs on such factors as prospects for steady employment, chance for promotion, and over-all satisfaction with the job.

<sup>1</sup> Eastern service executive, Public Opinion Index for Industry, Princeton, N. J.  
Abstract of paper presented at annual meeting, Pacific Coast Gas Association, Santa Barbara, Calif., September 7-9, 1949.

We found that most people are pretty well satisfied with their jobs:

66 percent say they are well satisfied  
20 percent score as medium satisfied  
14 percent declare themselves strongly dissatisfied.

Job dissatisfaction is:

**Least among**

White collar workers  
Above-average income group  
Old employees  
College graduates  
Non-union

**Most among**

Manual workers  
Below-average income group  
New employees  
Only grade school education  
Union members

Job dissatisfaction in relation to union membership is particularly in-

teresting. Note that only 11 percent of members of independent unions are dissatisfied with their jobs.

The percentage rises to 28 percent as we go to non-union, to AF of L, to CIO. There is a nice philosophical question here of whether unions are caused by job dissatisfaction, or job dissatisfaction is caused by union. Notice, however, that, even with the CIO, half say they are very well satisfied with their jobs. Even in militant unions, management has a large percentage of stable, satisfied workers to appeal to.

We next wanted to get some idea of how men value the various characteristics of their jobs. So we studied the testimony of how well men like their jobs in relation to what they like best and least about their jobs.

Many employers still feel that the pay envelope encloses most of the

value in a job. Analysis of testimony, however, shows that people place high value on non-financial rewards such as interesting work, on job security, on interest the company takes in me, and chance for advancement. They place less emphasis on such factors as working conditions, handling of complaints, pay, the people you work with, your immediate boss, vacation policy, working hours. (Not that pay is unimportant.)

Opinion Research Corporation has made many community studies to find out how a company stands with local townsmen. In study, we find that the company that pays the highest wages is not necessarily the place where people like most to work. The evidence shows clearly that employees ask for spiritual as well as material satisfactions from their jobs. If satisfied employees contribute more profit to the balance sheet than dissatisfied employees, then it is sound business to undertake projects that give spiritual satisfaction.

Take interesting work, for example. Good job placement is obviously important but also the job is made more interesting when its significance through the various media of employee communication is made known by such devices as employee publications or plant tours, which show the employee:

How my job fits into the whole picture, and what happens to the things I make.

Or take job security. It is not inevitable that men should seek security through the closed shop, seniority, featherbedding, and government guarantees. Most of us believe that these things will in fact only guarantee insecurity. The things that really make jobs secure are productivity and low unit cost, research, aggressive advertising, selling, fair profits, and team play. The secret of all selling is to define the buyers' interest, then show how your product satisfies that interest better than the product of the competition. If people place high value on job security, then part of the merchandising problem is to show how more security is obtained by company devices.

We wanted to see how job dissatisfaction is linked to belief in statism. To find the collectivists, we asked each employee four questions.

When asked the question, "Is government control needed to keep prices fair?" 20 percent said yes, 23 percent said the government should set top limits on salaries, 30 percent said the government should limit company profits, 33 percent said workers can increase their standard of living best by getting a bigger share of the company's money, rather than by producing more.

The secret of the rise in the American standard of living is increased productivity. Isn't it interesting that only 41 percent say that the best way to get more is to produce more.

Now let's put all this testimony together by saying that an extreme collectivist is one who gives leftist answers to all four of these questions.

### Socialism by degrees

There are not many of these extremists—only four percent. These people, it would seem, are quite beyond our poor powers of persuasion. But there are quite a few, 39 percent, who give leftist answers to some questions, though not on others. 57 percent give free enterprise answers to all the questions, or at least to three.

Thus, employed Americans are still capitalistic at heart. There are very few extremists. But there are about four out of ten who choose government intervention to solve a specific problem. That, of course, is the way a socialist mentality slips up on a people—by degrees.

Now observe the relationship between job satisfaction and belief in free enterprise. Extreme collectivism steps up from two percent of the very well satisfied to 12 percent of the strongly dissatisfied. Note also that belief in free enterprise drops from 62 percent among the very well satisfied to 29 percent among the strongly dissatisfied.

So job satisfaction and dissatisfaction quite obviously get translated into support or lack of support of a free market system. And job satisfaction is a result not only of such things as pay, hours, and working conditions, but also interesting work, job security, and interest the company takes in me.

Now one more step in this analysis. We wanted to find out how economic ignorance is related to belief in collectivism.

So we framed a series of simple statements of fact such as:

"Customers refuse to buy from a company whose prices are too high, and another company with lower prices will come in and get the business."

"Money invested in any industry buys equipment that helps workers produce more and earn more."

"Most industries, when you figure out the good years with the bad, make only a small percent of profit."

"Owners and shareholders of the average factory put up money to buy tools and equipment amounting to \$6,000 per employee."

A scoring system was worked out and employees were divided into well informed, partly informed, and uninformed. Then these groups were studied in relation to their collectivist beliefs.

Here are the results:

Whereas only one percent of the informed are classified as collectivists, 21 percent of the uninformed are so classified. Observe, too, whereas 75 percent of the well informed are classified as free enterprisers, only 17 percent of the uninformed are so rated. Thus, the more an employee knows about the workings of the free enterprise system, the more he believes in it.

This, then, is a strong argument for increasing the quality and quantity of the flow of economic information. There is one important qualification: A flow of simple facts is not enough. *Facts need interpretation.* For example:

**THE FACT:** This company makes five cents per dollar of sales. We cannot stop there. We must indicate the meaning:

This is a free profit. To get more we must produce more. Profits mean progress. Profits guarantee job benefits.

Particularly is it necessary to spell out meaning to people who are less well educated. College graduates have some facility to translate facts into ideologies but grade school graduates have difficulty doing this.

People do not resent simple explanations so long as they are not preached at. Our constant tendency in industry is to talk over the public's heads. The potency of what we say will be greatly increased if we talk

plainly down where the people live.

What is the solution?

We have long defined the problem as a problem in competition quite similar to the ones you solve in manufacturing and merchandising your products, the competition in this instance being union leaders, politicians, etc.

The classic formula for winning a market for leadership as well as for product is: Make a better product than your competitor and do a better job of selling than your competitor.

The battle is for men's minds.

## Human relations

Just as we are laboratory-minded toward developing new products, so, too, we must invent better systems of human relations.

In merchandising products the procedure is well established.

- (1) Define product merits. What will it do for the buyer? Why is it superior to competitive products?
- (2) Formulate selling themes.
- (3) Indoctrinate salesmen with the merchandising plan.
- (4) Organize distribution.
- (5) Advertise continually.
- (6) Sell—sell—sell every day.

Exactly the same procedure is called for in selling management's leadership.

The first job is to set forth the word. Define the merits of your leadership product; analyze what it does for the buyers—why it is superior to the offerings of the competition. Then formulate basic selling themes—ideas you wish to put into the heads of the buying public. Then work through the various media to your buying publics—the foremen, employees, townsmen in the plant community, vendors, stockholders, customers, and the general public. In all marketing efforts we talk to our customers, but also we listen to them for ideas on how to serve them better.

Practically all companies have formulated basic selling themes or claims for their products—ideas they seek to put into buyers' heads, but this conception has not carried over very well into the merchandising of leadership.

Only nine percent of American companies have well developed public relations themes and 54 percent of the companies have little or no long-term

themes. There is obvious need, therefore, for management to ask itself:

What is the faith by which we live?

What does our leadership and our system or organization do for our publics?

Why is our leadership product superior to that of the competition?

Every company will want to answer this question in its own way, but here are some ideas for basic themes that we know have power.

What is a company's social significance?

What does the company mean to the community?

How does the product contribute to better living?

Companies are not only economic machines, they are social vehicles which individuals and communities employ to realize values. Men's welfare and ambitions are tied up with them. Whole communities prosper or die with their industries. What a tremendous story of social significance industry has to tell!

Or take another point where the public constantly needs reassurance; namely—are the company's motives to be trusted? Is it dedicated to serving the public's interest? Does it make an honest product? Does it take an interest in and contribute to the community or does it have a blood-sucker mentality?

## Three-way responsibility

Does it respect employees as good and valued associates in the business, or does it look upon them as badge numbers? Is it really trying to make jobs steadier and more attractive or is it interested only in the dollar sign?

Another important point in any long-term theme is the idea that management is responsible to several publics, chiefly to customers, employees and stockholders. More and more companies are drawing this picture of three-way responsibility of management.

And still another very important long-term theme is that the company dollar is split fairly between the employee and the stockholder.

Information on how the business system works—the economic rules under which the game is played—is still

another important part of any long-term public relations theme.

How do we get capital?

How does capital buy tools?

How do tools make high wages?

How do free markets control business activity and why this free market is the democratic way.

Why competition is good for us, and what will happen to us if we don't stay competitive.

What is the function of profits and so on?

There are other important themes, but these few suggest how a company can formulate concretely the ideas it wishes to sell to its various publics.

We know that attitudes are reactions not necessarily to facts or events. Mr. Ruthenburg, president of Servel, tells me that he was amazed to find some ministers in his plant community saying that he chained workers to machines. He took these ministers through the plant and showed them that the chains were safety devices which automatically drew workers' hands away when the machine stamped out a metal shape. Thus interpretation in this instance spelled the difference between exploitation and humanitarian concern for worker safety.

This is Rule No. 1 in the book of merchandising. *Never expect facts to speak for themselves.* Always supply company interpretations if you want to induce positive attitudes in the minds of your publics. Curiously enough, this rule is violated times without number in the selling of leadership.

Our second observation is this: You will have observed in this discussion of long-term public relations themes the emphasis on good motives, namely, the idea that management is trying to reach the goals that people want. We know from our studies that people are ends-minded. They like to view the rosy dawn. They are not very competent to assess means. They follow leaders who they think are working for the good ends. Our national values are liberty and higher standard of living. The collectivists say, "I will give you these things by regulating the economy in your interests, by fixing prices, by nationalizing electric power, medical service, etc."

The free market fellow, being mean-minded, says (Continued on page 44)

Section to present an interesting  
and varied program at A.G.A. convention

# Accountants look to Chicago



L. E. "Cy" Frailey, popular public speaker, will address the luncheon meeting on October 20



Joseph B. Jeming will discuss depreciation at accounting luncheon on Thursday, October 20



J. W. Vanier will lead Wednesday afternoon panel discussion on service order simplification

The Accounting Section during three fast-moving afternoons of meetings at the American Gas Association annual convention will view the latest in utility accounting, public relations, labor relations and economics. The Section's chairman, L. E. Reynolds, his able coordinators, Paul E. Ewers of the Customer Accounting Activities group and Austin T. Gardner of the General Accounting Activities group and the respective chairmen of the various committees have developed an interesting, worthwhile, educational program which should attract accountants from every section of the nation's natural and manufactured gas industries. All of the meetings will be held at the Palmer House with a general session luncheon meeting on Thursday, October 20, closing the program.

The Accounting Section's contribution to the Convention's Wednesday morning General Session is Henry S. Beers, vice-president, Aetna Life Insurance Company. He will discuss how far the industry can go with pensions, what the limitations are, and their impact on labor negotiations. This is certain to be a straight from the shoulder, provocative talk that will give the audience something worthwhile to take home.

L. E. "Cy" Frailey, one of America's most popular public speakers, is a feature attraction of the Accounting Section program. This speaker from Columbus, Ohio, internationally known for his articles on business letters, was secured for the general session luncheon, Thursday, October 20, through the joint efforts of the Customer Relations and Customer Collections Committees. He will point his talk specifically at what is being done to promote better customer relations, and what needs to be done. He is known for his wit as much as for the soundness of his suggestions and he is not the kind to offer "meat" without a

generous seasoning of "sauce."

Mr. Frailey was born in Illinois and educated at State University in Champaign. He has conducted numerous sales and letter clinics for business executives in the United States and Canada and is the author of seven books, including a 1,300-page Handbook of Business Letters used widely in business and universities.

The Taxation Accounting Committee arranged for the second featured speaker on the Thursday luncheon program—Joseph B. Jeming, New York consultant. His talk, "Should Depreciation Be Discretionary," in effect, will answer Robley Winfrey's talk which was one of the highlights of the Accounting Conference in Detroit last April. In general, he will enlarge upon the theory that discretionary is not the same as arbitrary, that discretionary implies that there are limits within which depreciation estimates must fall, and that there is danger in the indiscriminate use of so-called "type curves" which of themselves produce no measure of discretionary limits for depreciation estimates.

After the chairman, L. E. Reynolds, comptroller, the Connecticut Light and Power Co., Hartford, Conn. makes his report at the luncheon meeting, John A. Williams, assistant controller, Niagara Hudson Power Co., Syracuse, N. Y., chairman of the Nominating Committee, will report on nominations for the coming year. Election of officers will follow.

Section committee sessions will open Tuesday, October 18, 1949 at 2 P.M. Austin T. Gardner, Delaware Power and Light Co., Wilmington, Del., coordinator, General Accounting Activities, and Paul E. Ewers, Michigan Consolidated Gas Co., Detroit, Mich., coordinator, Customer Accounting Activities, will preside at a joint session

of the General and Customer Activities Group.

At this meeting, A. G. Burnett, New York Power and Light Corp., Albany, N. Y., chairman of the Customer Accounting Committee, and B. S. Rodey, Jr., Consolidated Edison Co. of New York, Inc., chairman of the Taxation Accounting Committee, will collaborate in helping the industry examine its rules of accounting.

Leland Balch, secretary and treasurer, Lowell Gas Co., Lowell, Mass., will report on "The Problems of LP-Gas Accounting." This digest of bottled gas accounting together with the ensuing discussion undoubtedly will expose much valuable information about what to do and how to do it.

Philip E. Eddy, vice-president in charge of customer service, The Peoples Gas Light and Coke Co., Chicago, Ill. will talk about "Why Are Good Customer Relations Necessary." Relations—labor, customer, and otherwise—are of foremost importance in this particular era and Mr. Eddy's analysis will provide thought-provoking information on this timely subject.

A review of standard packaging progress, presented by the Materials and Supplies Committee, will feature G. B. Herr, The Peoples Natural Gas Co., Pittsburgh, Pa., who will explain in detail what has been accomplished and will coordinate the round-table conference which undoubtedly will follow.

Wednesday afternoon, starting at 2 p.m., there will be four Accounting

Section meetings running simultaneously.

L. R. Michelsen, The Peoples Gas Light and Coke Co., chairman of the Materials and Supplies Committee, will preside at a meeting where Carl H. zur Nieden, Philadelphia Electric Co., Philadelphia, Pa., will talk about "Handling of Truck Stocks."

The meeting of the Property Records Committee, presided over by Ken R. Watson, Philadelphia Electric Co., Philadelphia, Pa., will present talks by R. H. Miller, Northern Natural Gas Co., Omaha, Neb. and A. N. Durand, Public Service Electric and Gas Co., Newark, New Jersey. Mr. Miller will talk about "Property Accounting for Natural Gas Pipe Lines and Production Plants" and Mr. Durand about "Accounting Segregation of Gas Utility Plant."

The Customer Accounting Activities Group guided by Paul E. Ewers, Michigan Consolidated Gas Co., as was expected, has an excellent affair planned. The programming that this group does year in and year out is outstanding. Martin J. Coughlin, The Hartford Gas Co., Hartford, Conn., will open the meeting with a talk about "Scheduling and Preparing Meter Change Orders for Periodic Gas Meter Tests." Our popular, silver haired friend from the Nutmeg State promises to reveal considerable informative data.

The second topic, Let's Look at Mr. B. D., an analysis of accounts charged to uncollectibles, by O. B. Cook, Battle Creek Gas Co., Battle Creek, Mich. should enable every credit and collec-

tion department to plan its activities more effectively.

One of those rip-snorting and entertaining panel discussions about service order simplification will follow Mr. Cook. J. W. Vanier, Southern California Gas Co., Los Angeles, Calif., is to be the moderator. He will be assisted by A. E. Gerlaugh, Dayton Power & Light Co., Dayton, Ohio; A. C. Haake, The Peoples Gas Light & Coke Co.; L. J. Rauh, Consolidated Gas Electric Light & Power Co., Baltimore, Md., and John A. Williams, Niagara Hudson Power Corp., Syracuse, New York.

A talk by Beach J. McMillen, The Cincinnati Gas & Electric Co., Cincinnati, Ohio, "Are We Training Our Employees to Meet the Public," will complete the session. It's a well-balanced program of wide interest and a credit to those responsible for developing it.

F. J. Labanca, New Orleans Public Service Inc., chairman General Accounting Committee, will preside at that group's session. Features will include the following talks: "Accounting Problems in Conversion to Mixed Manufactured and Natural Gas Distribution," by R. H. Johnson, The Brooklyn Union Gas Co.; "The Importance of Internal Control to Management," by Carmen G. Blough, director of research, American Institute of Accountants, and "Control of Construction Expenditures," by D. W. Peterson, Minneapolis Gas Company.

Obviously, the Accounting Section is looking forward to its visit to Chicago this October. See you at the convention!—J. W. R.

## Credit picture

(Continued from page 17)

discontinue notices shows a greater increase than in the last report. This, no doubt, is due to the larger uncollectible bill figures reported in nearly all areas, and reflects an attempt to reduce the charge off by a closer collection follow up.

The number of meters disconnected for non-payment increased for every section. This undesirable trend is indicative of the tighter money situation throughout the country.

Despite an increasing number of companies that are committed to the practice of reducing their deposit out-

standing, there is an increase for the country as a whole. This upward trend is no doubt a result of efforts to guard against the increased losses which were experienced in nearly every section of the country.

Except for the Middle Atlantic and West North Central areas, there is a general increase in the number of accounts charged off; however, the increase is lower than that of the previous report for the country as a whole.

Net charge off is up in all areas except the West North Central. While the losses are still increasing the rate of increase is slightly less than that

shown in the previous report. It would appear that the more stringent collection practices that have been instituted are beginning to show results.

Regions given in "The Credit Picture" are broken down as follows: New England States—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont; Mid-Atlantic—New Jersey, New York and Pennsylvania; East North Central—Illinois, Indiana, Michigan, Ohio and Wisconsin; West North Central—Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota; South Atlantic—Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia and West Virginia; East South Central—Alabama, Kentucky, Mississippi and Tennessee; West South Central—Arkansas, Louisiana, Oklahoma and Texas; Mountain States—Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah and Wyoming; Pacific States—California, Oregon and Washington.

*Several new appliances will be added to the combined commercial gas cooking area*

## A. G. A. plans Hotel Show exhibit

An interesting new display motif will highlight American Gas Association's combined commercial gas cooking exhibit at the National Hotel Exposition in Grand Central Palace, New York, November 7-11, 1949. Fifteen manufacturers will cooperate this year in showing the latest developments in heavy duty gas cooking equipment and allied appliances.

A new feature in the A.G.A. area at this year's Hotel Show, the thirty-fourth national exposition of its kind, will be a gas water heater and dishwasher. Addition of these two appliances is in keeping with the Association's gas utilization promotion for the *all-gas* commercial kitchen. A steadily increasing number of organizations have stressed the importance of sanitation. Gas-fired water heaters and booster heaters play a large role in the sanitary washing of dishes and other food service utensils by providing abundant water at proper temperature.

New over-all design for this largest exhibit of the Hotel Show will feature new mechanical flames. Made of plastic,

the flames are extremely realistic and present a beacon which no visitor could miss as he approaches the north end of the exposition hall.

The availability of materials and normal deliveries of equipment together with the increased trend toward modernization patronage of the public, have aroused more interest in the Hotel Show this year than ever before. Commercial gas men will find their visit to the A.G.A. combined exhibit a stimulating experience which will enable them to take home a new zest for the promotion of commercial gas cooking in their respective territories. Competition is too keen to overlook any opportunity to insure the leading position gas holds today.

Exhibitors who are cooperating in the A.G.A. combined exhibit include: American Stove Co., Anetsberger Brothers, Inc., The G. S. Blodgett Co., Inc., The Cleveland Range Co., Detroit-Michigan Stove Co., Duke Manufacturing Co., Groen Manufacturing Co., Hart Division of Hart Manufacturing Co., Magi-Kitch'n Equipment Corp., Kewanee In-

dustrial Washer Corp., J. C. Pitman & Sons, Inc., Robertshaw-Fulton Controls Co., Savory Equipment, Inc., A. O. Smith Corp., and Vulcan Division of Hart Manufacturing Company.

The second annual Commercial Gas Breakfast will be held at 8:30 on Tuesday morning, November 8, at the Hotel Roosevelt, New York. Success of the breakfast last year indicated that this should be an annual affair during Hotel Show Week. The Industrial and Commercial Gas Section will have as its guests the editors of publications in the food service and hotel fields who plan to meet the commercial gas men and representatives of commercial gas equipment companies attending this breakfast. Donald B. Gridley, Patterson Publishing Co., Chicago, publishers of American Restaurant Magazine, will be the after-breakfast speaker with an important and interesting message for all.

Two important committee meetings will be held during Hotel Show week. One will be the A. G. A. Food Service Equipment Committee, E. V. Fineran, Washington Gas Light Co., chairman. The main activity proposed for this committee next year will be a national sales campaign on commercial gas cooking and water heating. It is expected that this campaign will be in the nature of a Round Up of old cooking equipment in commercial kitchens. Another activity of this committee will be a continuation of the Gas Industry Chain Contact Program which was started by the predecessor group to provide better coverage of the headquarters of chain organizations serving public meals.

Also meeting during Hotel Show week will be the Joint Committee of American Gas Association, Food Service Equipment Industry, Inc., and Gas Appliance Manufacturers Association. Manufacturers and dealers at this meeting will hear A. G. A. plans for the sales campaign in which they will share the profits.



Committee on Displays at National Expositions allocating space for A. G. A. Combined Commercial Gas Cooking Exhibit at the Hotel Show: (Clockwise around table) George Vette, Boston; M. A. Combs, A. G. A.; Albert S. Hess, Frank J. Drohan, New York; Hugh L. Wathen, chairman (standing); William Steele, C. A. Shear, New York; C. C. Hanthorn, Philadelphia, Pa.; W. W. Stake, New York

*Regional meetings provide data  
for local drives throughout the country*

## Round Up gains momentum

**A PAR activity** Breakfast throughout the nation was cooked this morning on millions of gas ranges, nearly half of them more than ten years old and about one quarter of them more than 15 years old, reported Dean A. Strickland, United Gas Corp., on August 22, 1949. "Here," he said, "is a shining example of the fact that housewives aren't enjoying the advantages of modern gas cooking. Working with these old ranges they're not even cooking with gas!"

With this dramatic pitch, Mr. Strickland opened the gas industry's Old Stove Round Up meeting in Fort Worth on

August 22, 1949. Representatives from four states attended the meeting, one of a series of ten pep-up gatherings held in all sections of the country to get the Old Stove Round Up off to a fast start.

Sponsored by American Gas Association with the cooperation of Gas Appliance Manufacturers Association, the nationwide Round Up promotion is expected to combine the efforts of about 400 gas companies, 60 gas range manufacturers and 70,000 dealers. Planned for execution on an unprecedented scale, the drive will reach its peak in the last quarter of 1949. Its early success indicates that the drive will be continued as an annual event.

Speeches at the regional meetings presented a wide variety of helpful information for companies and dealers on tie-in with the Round Up.

A. G. A. staff members moved from meeting to meeting, displaying promotional material and assisting local utility representatives in planning details of their meetings.

Several speakers emphasized that the present "recession" is actually one of the most prosperous the country has ever enjoyed with personal and family incomes \$14 billion more than they were at the end of the war. Consequently, there is still an enormous pent-up demand for modern appliances.



Portland, Ore.: (L. to r.) R. G. Barnett, Portland Gas & Coke Co., chairman; John Bourke, A. G. A.; C. W. Steele, Portland Gas & Coke Co.



Fort Worth: (L. to r.) H. N. Oldham, Southern Union Gas Co.; J. M. Peters, United Gas Corp.; A. D. Harper (standing); R. Walker, United Gas Corp.; C. H. Sacher, Oklahoma Natural Gas Co.; Alexander Johnson, United Gas Corp.; Earle Garrison, M. H. North, Mildred Clark, Oklahoma Natural



Portland, Ore., meeting had a "natural" promotional event. C. W. Steele, Portland Gas & Coke Co., chatting with 87-year-old homemaker who parted with her old stove after nearly 50 years of continuous use



Minneapolis: Clifford E. Hall, A. G. A. (left), roping in A. T. Carrow, Cribben & Sexton Co.; P. F. Atlas, Northern Indiana Public Service Co.; T. E. Boylan, Florence Stove; R. T. Bennett, Montana-Dakota Utilities Co.

Dramatic event at the time of the Portland, Ore., meeting was a parting of the ways between Mrs. Celia L. Hewett of that city and her 50-year old stove. The homemaker and her stove were photographed with F. W. Williams, A. G. A., and C. W. Steele, Portland Gas & Coke Co., as an interesting publicity promotion on the Round Up drive.

A manufacturer representative and speaker at the Minneapolis meeting arrived at the last minute in a horsedrawn tallyho. This dramatic entry added appeal to his talk on the importance of close tie in between gas range manufacturers and the Round Up drive.

Approximately 100 gas company ex-

ecutives attended the Chicago meeting. Walter H. Kurdelski, Michigan Consolidated Gas Co., advised his audience to look for pointers back to the Round Ups which the gas industry held on a smaller scale before the war. A. G. A. representatives described the tremendous potential which exists for modern gas ranges. One manufacturer representative suggested that each gas company appoint a good dealer relations man, who in turn could call in key dealers.

The public on the Pacific Coast was reminded that many people collect antiques, but that an old-fashioned stove is an antique no one wants.

Also participating in the Portland,

Ore., meeting was the Oregon Liquefied Gas Association.

In August, a mounted parade moved through the streets of Oakland, Calif., in the Round Up sponsored by the city's Junior Chamber of Commerce and the Gas Appliance Society of California.

In every section of the country gas companies, dealers and manufacturers are jumping on the Round Up bandwagon. Growing use is being made of the promotional helps offered by the A. G. A. Promotion Bureau and Gas Appliance Manufacturers' Association. Imaginative thinking and down-to-earth planning are being employed on an ever increasing scale.



Round Up "horseplay" occupies delegate at Fort Worth meeting as Robert R. Suttle, Southern Gas Association, lends support in background



Santa Barbara: (Standing left to right) John J. Bourke, A. G. A.; James I. Gorton, GAMA; F. W. Williams, A. G. A.; E. A. Norton, James Graham Mfg. Co.; (kneeling) Frank N. Seitz, H. M. O'Haver, J. L. Hall, Southern California Gas Company. Mr. Hall was chairman of Round Up regional meeting

# A.G.A. research project discovered

By CORLISS R. KINNEY

*The Pennsylvania State College, State College, Pa.*

A program has been underway at The Pennsylvania State College under the auspices of American Gas Association's Gas Production Research Committee to develop standardized laboratory techniques for the classification of oil-gas and water-gas tars. The basis of this classification is the fact that such tars are separable into distinctive chemical groups, upon the relative proportions and properties of which

the potential industrial utility of any given tar depends.

Extensive analytical studies have been made in the past of the chemical characteristics of coal tars, but it has long been recognized that coal tars and their distillates differ in many important respects from oil-gas tars and therefore that the descriptive analytical procedures and definitions applicable to the former do not necessarily apply to the latter.

For example, the common tar acids, or phenolic derivatives, so highly characteristic of coal tar distillates, are wholly lacking in oil gas tars, as in

fact are almost all oxygenated and nitrogenous hydrocarbon derivatives. Thus, coumarone which is invariably associated with indene in coal tar, and from which the well known coumarone-indene resins of commerce are derived, is entirely absent from the corresponding indene cuts of light oils from oil-gas tars. Therefore it seemed probable a comparable study of oil-gas tars might reveal other chemical differences indicating specialized industrial uses or special economic values.

Oil-gas tars, like coal tars, are highly complex and contain such an extraordinary number of hydrocarbon compounds that chemical identification of each individual would be an endless task and, with a few important exceptions, would be unprofitable economically because of the necessarily small percentages in which most of these compounds occur.

On the other hand, it is quite practicable to make certain major product group separations and determine the properties and industrial utility of these groups as a whole, or any subdivisions.

In general the three major product group separations are the light oils (boiling below say 200° C), the heavy oils (boiling above 200° C) and the residual tar. The separation, properties and industrial utility of the light oils in the production of the common aromatic solvents and styrene-indene type resins are well known to the gas industry. Hence the present studies were limited to the characteristics and properties of the less well known heavy oils and residual tar which comprise the bulk of the tar and which is normally disposed of at fuel prices.

The principal product sub-groups in the last two categories are:

- I. Volatile heavy oils (boiling range 200° C to 400° C or more) comprising two subgroups:
  - A. Resin forming or polymerizable oils, which may also be subdivided into two groups

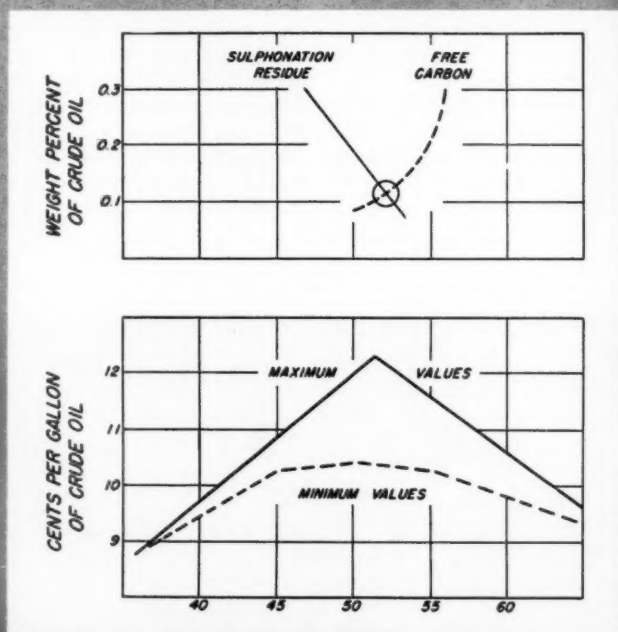


FIG. 1. RELATION OF OIL CRACKING DEPTH TO: 1. SULPHONATION RESIDUE AND FREE CARBON 2. POTENTIAL PRODUCT VALUES OF TAR

# condensed values in gas tars

(1) Oils which polymerize by simple heating to give non-volatile thermoplastic resins.

(2) Oils which do not form polymers by heating but do so with the aid of catalysts such as aluminum chloride or sulfuric acid.

## B. Neutral solvent oils

These are low viscosity aromatic oils, chemically inert with respect to heat or catalyst. Certain fractions of these oils are rich in dissolved solids, as for example, the naphthalene, methylnaphthalene and anthracene oil cuts.

## II. Residual tar—divisible into:

### A. Pitch resins

Thermoplastic resins, soluble in benzene, insoluble in pentane. These are heat polymers formed in the liquid tar after condensation and derived from heavy oils of the type described in IA1 above as a result of the spontaneous polymerization of these oils during the condensation and subsequent tar handling processes. These may be further classified by their solubility in other common solvents.

### B. Free carbon, or benzene insoluble

Comprising lampblack and highly condensed hydrocarbons, very low in hydrogen, formed at high temperatures during the oil pyrolysis.

The problem assigned to Penn State was to work out the simplest possible analytical procedures for separating and determining the percentages and properties of these various chemical groups in commercial oil-gas and water-gas tars.

The potential economic value of the tar depends upon the quality as well as the relative quantities of these several groups. For example, the value of resin-forming oils to the plastic industry is determined by the color, melting point and solubility characteristics of the resulting resins—water white products carrying the highest

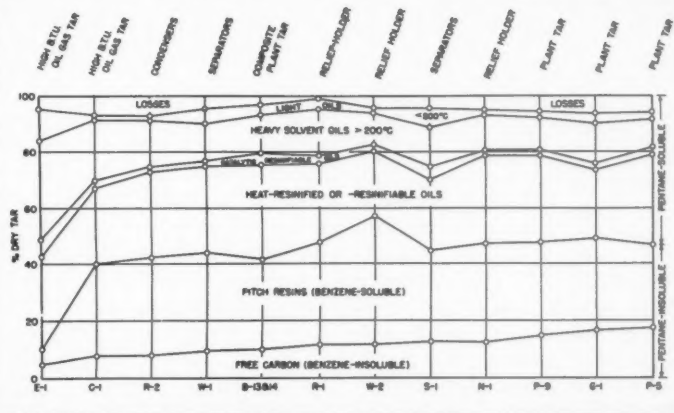


FIG. 2. PRODUCT YIELDS FOR 12 UTILITY WATER GAS TARS

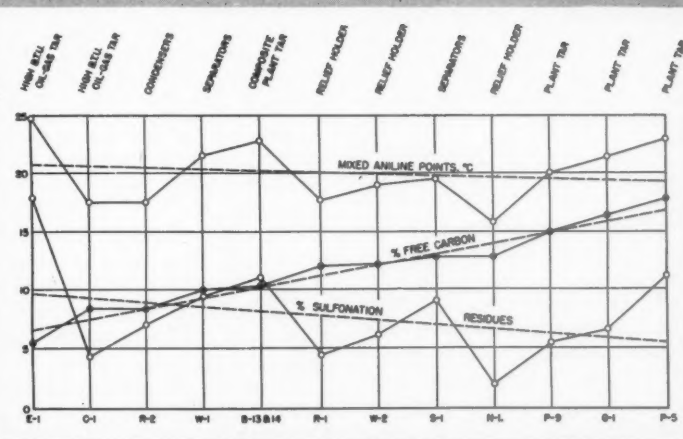


FIG. 3. FREE CARBON, SULPHONATION RESIDUE AND MIXED ANILINE POINTS

premium. The value of selected cuts of neutral solvent oils as plasticizing oils, rubber reclaiming oils, etc., is dependent upon their solvent power. This in turn depends primarily upon their aromatic content which can be measured by such tests as mixed aniline point or refractivity intercept.

The polymerizable or resin forming oils, if present in amounts and quality sufficient to justify their recovery, have by far the greatest potential economic value of any tar group. If, however, the concentration of polymer oils falls below a limiting value the resin yields will not pay the costs of processing and recovery. The higher the concentration of monomer oils above this limiting value the higher should be the premium value of the oil.

The residual pitch resins have a potential range in value from fuel or road tar levels to that of the better grades of natural asphaltic resins. Their utility as rubber fillers or plasticizers and for compounding floor tiles, etc., is determined by such properties as color, melting point and solubility. The normal color of a true pitch resin in thin layers is a deep red by transmitted light. Such resins can be colored to give dark shades of reds, greens, etc., in floor tile compositions and rubber goods. The presence, however, of more than a small quantity of "free carbon" makes coloring impracticable. It also reduces the thermoplasticity of the product and sharply limits its marketability in the plastic industry.

A critical property of useful resins in the plastic industry is the softening point. Resins are usually sold in powdered or granular form. If the softening point is appreciably below about 95° F there is danger of fusion during shipping in very hot weather, thus rendering the product unacceptable to the consumer. A common cause of low softening points in residual pitches is undercracking. This contaminates the residual pitch resins with partially cracked oils with high sulfonation residues which lowers the softening point. Overcracking, on the other hand, results in excessive "free carbon" and dark colors.

It is typical of the cyclic operation of the usual carburetted water-gas and

oil-gas sets that some overcracking occurs at the beginning of the cycle when the checkerbrick is over-heated and that some undercracking occurs towards the close of the cycle when temperatures have dropped. Either of these conditions adversely affects all of the liquid tar products both as to yields and as to quality. This is graphically illustrated in Figure I, taken from a recently published paper on precision controlled thermal cracking in a two shell oil-gas set.<sup>1</sup>

In the upper of the two diagrams in Figure I the smooth curve at the left shows the decrease in the sulfonation residue or amount of undercracked oil as the depth of cracking increases, while the broken curve at the right shows the rising percentage of "free carbon" or overcracked oil at the higher cracking levels. The "depth of cracking" is measured by the number of cubic feet of oil-gas per gallon of oil cracked. Note that these two curves intersect to form a V with its point lying between 50 and 55 cubic feet of gas per gallon of "corrected" oil gas.<sup>2</sup>

### Product values rise

The pyramidal curve in the lower diagram of Figure I shows the changes which take place in the value of the liquid products at the corresponding cracking levels. These product values rise as the sulphonation residue decreases and then decrease as the free carbon values rise. Thus oil pyrolysis is clearly marked by two distinct phases, in the first of which the original oil is cracked with the production of liquid aromatics and diolefines. The second phase is marked by the destructive pyrolysis of the liquid aromatics produced in the first phase with the production of free carbon, heavy tars and hydrogen.

The sides of the pyramidal curve show what happens at increasing cracking levels under relatively ideal and uniform cracking conditions. But suppose the cracking conditions are not uniform, what happens?

Part of the oil may be undercracked under conditions shown at the extreme left. This produces low yields of liquid aromatics which are also badly contaminated with undercracked oil. That is, the product aromatics are badly contaminated with sulphonation residue. Under these conditions the toluene cut, for example, will be high in par-

affins, while the resin yields will be low and contaminated with colored bodies.

At the other end of the cracking cycle, the oil may be highly overcracked, under the conditions illustrated at the extreme right of Figure I. In this part of the cycle the aromatics will be low because they have been partially destroyed. Also the pitch resins are contaminated with the resultant "free carbon" formed by the carbonizing action of the aromatics. The over-all result is a lowering of the net yields of valuable liquid products. The extent of these losses in extremely poor operations is indicated by the broken line forming the base of the pyramid. Thus the actual product yield in any given operation may lie anywhere within the area of the triangle depending upon depth and homogeneity of cracking.

With this simple mechanism of the oil cracking cycle in mind, examine the analytical data obtained at Penn State upon water-gas and oil-gas tars obtained from a selected group of gas companies. The method of analysis is based on a pentane extraction which separates the tar oils without the use of heat. Twelve samples, identified by code numbers, are arranged according to increasing amounts of free carbon along the base line of Figure 2.

The ordinates show the cumulative percentages of the following products for each sample. The free carbon is shown at the bottom. Next above are the pentane-insoluble, benzene-soluble pitch resins. The sum of these gives the total residual tar, insoluble in pentane. Next above is given that part of the heavy oils which is convertible on heating to thermo-plastic resins, followed by the catalytic resins. The zone above shows the heavy neutral solvent oils. Finally, in the uppermost zone are shown the light oils and analytical losses, which make up the totals representing 100 percent of the original dry tar samples.

As to the character of the samples, E-1 and C-1 are examples of high Btu oil-gas operation, although E-1 contains some normal water-gas tar. The remaining tars are all from carburetted water-gas operations.

For pictorial convenience the corresponding points between the samples have been connected by lines so that the areas between these curves are proportional to the relative yields.

<sup>1</sup> Ugite Developments in High Temperature Pyrolysis. Chemical Engineering Progress, Jan. 1949, Page 71-80.

<sup>2</sup> The oil-gas volumes have been corrected for inerts and water-gas as described in U. S. Patent No. 2383772.

This shows that the free carbon in general varies from about 5 to 18 percent of the dry tar and that the benzene-soluble pitch resins, with the exception of E-1, vary from about 27 to about 45 percent.

The third zone shows 23 to 34 percent of heavy oil monomers, which are convertible by simple heating to thermoplastic resinous polymers, followed by a narrow band of from 2 to 4 percent of catalytically polymerizable heavy oil.

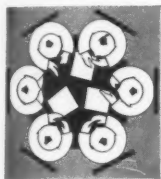
The heat-sensitive, resin-producing, monomer oils are, potentially, the most important economically of these groups. But by reason of their susceptibility to polymerization on simple heating they are by far the most difficult group to isolate from the tar emulsions. Methods of high tempera-

ture digestion commonly employed in the past to reduce the water content of the tar emulsions in the separators, as well as the usual distillation practices to complete the dehydration of the tar, or to separate the heavy tar oils, may easily polymerize a part or all of these monomer oils.

For example, tars R-1 and W-2 are relief holder tars and may be compared with condenser and separator tars R-2 and W-1 respectively from the same plants. Observe that a considerable part of the heat sensitive oils in these tars has been polymerized by the method of treatment, particularly in W-2, and converted to pentane-insoluble pitch resins, indistinguishable from the rest of the residual pitch. Thus under extremely adverse conditions the

residual pitch including the "free carbon" may easily account for from 65 to 80 percent of the dry tar instead of the 40 to 50 percent shown by this analytical method in which polymerization has been carefully avoided by employing a process of cold extraction with pentane. It is apparent, then, that the heat sensitive resin formers not only comprise our most important hidden values, but that these values are quite easily destroyed in many common tar processing operations.

The next point of general interest is that the "free carbon" present in the residual pitch indicates that over-cracking during a portion of the cycle is common to all of these plant operations. The amounts (Continued on page 37)



## Industrial relations round-table

Prepared by  
A. G. A. Personnel Committee

● An employee handbook is in reality a contract to which a company must adhere, in accordance with a ruling of Virginia Supreme Court. In a case involving Hercules Powder Co., it was required that severance pay, as outlined in a handbook provision, had to be paid even to employees who were going to work immediately for the Engineers Corps. The company attempted to avoid payment on the ground that the purpose of the severance plan was to tide employees over a period of unemployment which, in fact, did not exist for the employees in question. The Court ruled that the severance pay helped the company to obtain and retain good employees in a difficult labor market and was, therefore, binding upon it.

● A Dictionary of Occupational Titles, second edition, may now be obtained from Government Printing Office, Washington 25, D. C. The new edition contains 40,000 job titles and approximately 22,000 job definitions which include occupations in approximately 250 industries. The cost is \$3.50 for Volume I and \$2.00 for Volume II.

● Contract provisions on overtime pay, holiday premiums, shift differentials, Saturday premiums, and sixth and seventh day premiums, are summarized from 464 union contracts in an article prepared by the BLS and appearing in the July issue of Monthly Labor Review. The data is presented by industries, indicating the number of contracts

and the number of employees covered within each industrial group.

● How to organize a job methods improvement program is the subject of an article appearing in the July issue of Factory Management and Maintenance. This is the third article of a series on cost reduction which started in the May issue.

● An article entitled "Reducing Labor Turnover," by Joseph F. Waters of Personnel Institute, appears in the July-August issue of Personnel Journal. Mr. Waters explains how turnover rates are calculated and the different methods of stating turnover data which may be accomplished by using variations of the basic formula. Included also is an example of a method of reporting turnover, an exit interview form and an analysis of employee separations.

● "Economics" for Employees is an article written by William Exton, Jr. which appears in the July 1949 issue of Personnel (AMA). Mr. Exton groups the examples of "economics" programs into four classes: (1) company information; (2) basic economics; (3) special issues, and (4) generalized propaganda. His article describes the characteristics of these four classes and mentions the names of companies sponsoring programs which are examples of these four classes, together with a brief description of each program.

● Exemptions Under the Wage Hour Law for executives, professional and administrative employees will be affected by new minimum wages, under new regulations to be put into effect by the Wage Hour Administrator. The minimum for executives is being

raised from \$30 per week to \$55 per week, and for professional and administrative employees from \$200 per month to \$325 per month. There are changes in the definitions of the three classes of employees.

● Merit rating information must be furnished the union even though the contract gives the employer complete power to make merit ratings and pay increases based upon such ratings, without consulting the union. This was ruled by a Trial Examiner for NLRB in a case involving General Controls Company. It was found that the company was guilty of refusal to bargain in its refusal to furnish the union: (1) the names of employees who received merit raises; (2) the amount of such increases; (3) complete seniority lists of the various departments, and (4) the rating review cards of all employees.

● Annual guarantees, guarantee of weekly hours or wages, eligibility requirements and escape provisions, have been covered in the latest chapter of BLS Bulletin 686 "Union Agreement Provisions."

● A voluntary checkoff authorization which contains no termination or revocation provision is revocable at any time, under a recent NLRB decision involving Crosby Chemicals, Inc. The board reversed the ruling of the NLRB trial examiner who earlier had interpreted the silence of the authorization on the subjects of revocation and termination date to mean that it would be irrevocable for an indefinite period of time. Such indefinite irrevocability would have been a violation of Section 302 of the Labor Management Relations Act, 1947.

# Industry news

## Second quarter gas sales, revenues rise

**T**OTAL REVENUES from sales of gas by utilities for the second quarter of 1949 rose 9.2 percent over the same quarter of 1948, according to American Gas Association. The new quarterly total was \$391 million. Revenues from commercial sales represented the highest percentage gain, rising 18.5 percent. Residential gas revenues were up 7.7 percent and industrial gas revenues gained 8.3 percent over a year earlier.

In the 12-month period ending June 30,

1949, total revenues from utility sales of gas were \$1,620,000,000, an increase of 9.8 percent over revenues of \$1,476,000,000 in the previous 12-month period.

The gas utility industry was serving 22,900,000 customers at the end of June, 1949, an increase of 4.6 percent over 1948. Residential customers totaled 21,100,000, a rise of 3.8 percent over the 20,400,000 served in the previous year. Commercial and industrial customers gained 16.2 percent and 6.8 percent respectively.

Total revenues from natural gas sales during the second quarter of 1949 were \$246 million, a rise of 11.4 percent over the comparable quarter of 1948. For the 12 months ending June 30, 1949, revenues from natural gas sales were \$1,044,000,000, an increase of 13.5 percent over 1948 when natural gas revenues were \$920 million.

Sales of natural gas during the second quarter totaled 715 million Mcf, an increase of 9.4 percent over the like quarter of 1948. For the year ending June 30, 1949, sales of natural gas amounted to 3,007,000,000 Mcf, a gain of 12.6 percent over sales of 2,671,000,000 Mcf, in the like period a year earlier. At the end of June 1949, about 12,300,000 customers were being served with natural gas, up 8.9 percent over the previous year.

Revenues from manufactured gas sales in the second quarter of 1949 totaled about \$120

million, an increase of 6.1 percent over \$113 million in the like period in 1948. For 12 months ending June 30, 1949, manufactured gas revenues were \$477 million, a gain of 7.4 percent over a year earlier.

Manufactured gas sales in the second quarter of 1949 totaled 104 million Mcf, a decline of 2.2 percent under 107 million Mcf sold a year earlier. For the 12 months, manufactured gas sales were 432 million down 3.2 percent under 446 million Mcf sold in the comparable period in 1948. Manufactured gas customers declined slightly in the second quarter, totaling 8,600,000, a decrease of 0.4 percent.

Revenues from mixed gas sales in the second quarter of 1949 were about \$24 million, an increase of 4.0 percent over the comparable quarter in 1948. For the 12 months ending June 30, 1949, mixed gas revenues totaled \$98 million, a drop of 11.5 percent under a year earlier.

Mixed gas sales in the second quarter of 1949 were 35 million Mcf, a gain of 10.1 percent over a year earlier, when mixed gas totaled about 32 million Mcf. For the 12 months ending June 30, 1949, mixed gas sales were 141 million Mcf, a decrease of 8.3 percent under 154 million Mcf sold in the previous year. Mixed gas customers at the end of June 1949, numbered 1,900,000 customers, a decrease of 2.2 percent under the previous year.

## Natural gas supply assured for New England

**A**RRANGEMENTS to obtain natural gas for New England from two of the country's major natural gas pipeline systems have been completed by the newly-formed Northeastern Gas Transmission Co., Alexander Macomber, chairman, has announced.

Part of the supply is expected to be available by late 1950 and the remainder in 1951. The two sources will be Tennessee Gas Transmission Co., now extending its lines toward New England, and Transcontinental Gas Pipe Line Corp., which is currently building a transmission system to New York.

Each of the two cross-country natural gas pipeline systems, which draw on large fields in Texas and Louisiana, has entered into an agreement with the Northeastern Company in New England. Tennessee Gas has requested authorization to extend its lines into Massachusetts from the present terminus near Buffalo. Transcontinental plans to extend its system from New York to connect with Northeastern at the Connecticut-New York state line near Greenwich. This arrangement will give the New England states a double and interconnected source of supply.

Northeastern has also requested authorization to construct and operate a natural gas transmission system in New York as a wholesaler and transporter. The proposed New England pipeline system would cost \$17 million.

On August 30, 1949, the first contracts of their kind in any New England city were signed in Springfield, Mass. to provide natural gas for customers of Springfield Gas Light Company in eight cities and towns in Western Massachusetts. Officers of Northeastern Gas Transmission Company and Springfield Gas Light Company participated in the ceremony.

## GAMA shows six-month gas appliance picture

**I**NCREASES in unit shipments of gas-fired boilers, gas conversion burners and gas-fired furnaces are indicated in the regular six-month survey released recently by Gas Appliance Manufacturers Association.

Unit shipments of gas-fired boilers during the first half of 1949 were 11.2 percent greater than for the same period of last year, according to reports from 14 companies approximating 98 percent of the industry. During June 1949, unit shipments were 33.9 percent more than in June 1948. Reporting companies shipped 30,883 gas-fired boilers during the year ending June 30, 1949, with a manufacturers' value of \$10,136,000.

During the first half of 1949, unit shipments of gas conversion burners were 34.5 percent greater than during the same period of 1948, according to reports from 18 manufacturers. This increased activity is due largely to easing of gas limitations in various sections of the country. Unit shipments in June 1949

were more than five times greater than in June 1948. Reporting companies shipped 64,042 gas conversion burners during the year ending June 30, 1949, with a manufacturers' value of \$4,939,800.

Companies approximating 75 percent of the industry reported unit shipments of gas-fired furnaces during the first half of 1949 were 17.0 percent greater than for the same period of last year. June 1949 unit shipments were 44.7 percent greater than in June 1948.

During the year ending June 30, 1949, shipments of gas-fired furnaces were 154,160 units, as reported by 30 companies. The manufacturers' value of these shipments was \$27,665,700.

During the first six months of 1949, unit shipments of gas-fired water heaters were 15.5 percent less than during the similar period of last year, according to companies approximating 95 percent of the industry. Expanding

these figures, shipments for the first six months of 1949 approximated 621,000 units.

Unit shipments during June 1949 were 4.2 percent greater than for the same month of 1948. It should be noted that in January 1949 industry shipments were 31.3 percent below last year and at the end of March 1949 were 26.6 percent less than in 1948.

During the year ending June 30, 1949, reporting companies shipped 1,299,432 gas-fired water heaters valued at \$66,608,000.

Companies approximating 60 percent of the industry reported unit shipments of gas ranges during the first half of 1949 were 49.2 percent below shipments for the same period of 1948. Expanding these figures to represent the entire industry, unit shipments during the first six months are estimated at 815,000.

Reporting companies shipped 1,322,707 domestic gas ranges during year ending June 30. The manufacturers' value was \$124,986,000.

## Proposed A.G.A. amendments approved

**EXECUTIVE BOARD** of American Gas Association, meeting in New York on August 31, approved by unanimous vote two proposed amendments to Article V of the Constitution and Articles III and IV of the By-Laws of the Association. The amendments will be submitted to the A. G. A. membership on October 18, 1949 during general sessions at the 1949 Annual Convention in Chicago.

Effect of the proposed amendments is: (1) To provide for the appointment of one or more assistant managing directors, assistant secretaries and assistant treasurers to be appointed at the discretion of the Executive Board, (2) to change the name of the Technical Section to Operating Section.

Approval by the membership of the first amendment will permit greater dispatch in

handling routine matters requiring action by officers of the Association. No additional employees of the Association are necessary or contemplated in these appointments. The proposed change in the name of the Technical Section is designed to eliminate confusion arising out of use of the present name of this Section and to make its name more descriptive of the Section's functions.

## Dresser exports

**EXPORT ORDERS** of Dresser Industries, Inc., Cleveland, Ohio, makers of oil and gas producing equipment, from the Argentine, Turkey, Yugoslavia and Italy, that will total at least \$7 million and may run as high as \$10 million, have been announced by J. B. O'Connor, executive vice-president of the company.

"These sales, consisting chiefly of equipment to increase the availability of petroleum products and natural gas," Mr. O'Connor said, "reflect the effort now being made by nations all over the world to bring to their own people more of the benefits of their own natural resources."

Sales to the Argentine were made possible by the conclusion of a three-way arrangement whereby Argentine wools, hides and tanning extracts sold to Europe provide the means of payment.

Dresser companies are also furnishing pumps and gas compressor equipment for new Argentine refineries and installing positive gas boosters to improve the gas supply of the City of Buenos Aires.

In Italy, a gas-pumping equipment unit on display at the Padova Fair, plus several additional units, were bought by Italy for installation in the Po Valley to help supply natural gas to Italian industries. There are indications that deeper drilling may tap a new large natural gas reserve.

The firm's trade arrangement with Yugoslavia, Mr. O'Connor reported, is, in his opinion, typical of the kind of bargain that will have to be worked out between American private firms and foreign Governments if American foreign trade is to realize its proper potentialities. The Yugoslavia program includes both the rehabilitation of old wells and deeper drilling to promising new levels.

## Safety in Pittsburgh

**EMPLOYEES** of The Manufacturers Light and Heat Co., Pittsburgh, Pa. closed their August "No Accident" safety campaign with a perfect safety record—not a single injury to cause time lost from work.

Irving K. Peck, vice-president and general manager, reported that this same record was accomplished throughout the other six associated gas companies making up the Pittsburgh Group of The Columbia Gas System, Inc.

Approximately 2,975 men and women in the seven gas companies worked safely for 501,110 hours during the annual August drive for improved safety practices.

## Round Up wins New England support



Easy-to-prepare promotional exhibit holds the attention of principals at Boston regional meeting on the gas industry's Old Stove Round Up. (Left to right) J. A. Hiller, Portland, Me., regional chairman; John J. Quinn, Boston Consolidated Gas Co.; John C. Willis, New England Gas Association



Boston Consolidated Gas Company representatives examining one of the stoves to be rounded up. (Left to right) N. R. Millard, Mrs. Beryl P. Kimball, Frank Hackett, H. A. Kievenaar, H. R. Gleason

# Gas customers to budget house heating

**A** NEW BUDGET PLAN designed to spread heating costs evenly over the ten-month period from September to June has been announced by Consolidated Edison Co. of New York, Inc., for the utility's gas house heating customers.

The novel plan was developed following evidence that about 82 percent of the fuel consumed for house heating during the heating season is used between November and March. This fact means larger gas bills during the months when family expenses are usually heaviest.

Under the new budget plan, customers can pay each month ten percent of their estimated ten-month gas costs. Thus monthly payments

will remain constant and larger bills will be avoided during peak periods. Accounts will be squared off in the July billing period.

There are two ways of estimating monthly budget payments. Past records can be studied and a customer's payments determined from average consumptions over similar ten-month periods. For new installations, the company's sales department will make a survey of the premises and payments will be based on estimated ten-month gas consumption.

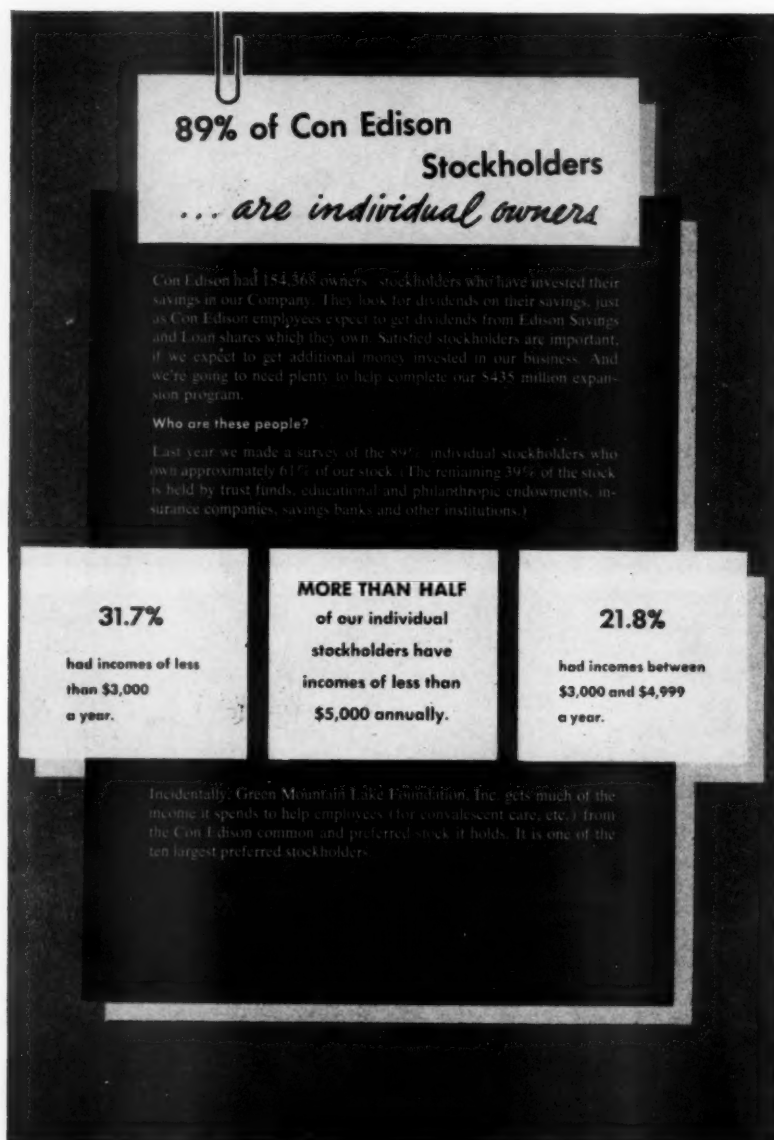
Steps will also be taken to avoid excessive differences in accounts at the end of the season. If monthly budget payments are too large, the credit will be applied to the customer's bill before July and standard billing

procedure will apply until the following September. Payments for the next period beginning in September will be revised.

On the other hand, if the budget estimate is too low a revised budget plan will be prepared so that the customer won't be faced with a burdensome balance in July.

For customers unable to start in September, the budget payment plan can be applied to whatever fraction of the heating season remains at the time they come on the lines. The plan does not apply for July and August, during which there normally is no demand for house heating fuels.

Brochures describing the service were sent in advance to all gas house heating customers.



## Employees informed

**B**ETTER INFORMED employees and stockholders is the goal of two illustrated booklets released by Consolidated Edison Co. of New York, Inc.

"Report to Employees on Con-Edison Progress," a 20-page publication, shows in easy-to-read detail what has occurred in the system during 1948. Increased costs of doing business, a stockholder survey, "extras" to employees, and the effects of teamwork all are singled out for attention. Wide use of simple sketches and the "memo" technique make the booklet unusually readable.

"An Introduction to Con Edison" has been mailed to all new stockholders of record and will be revised periodically. The publication is available to present stockholders on request. Used in conjunction with the company's latest annual report, the new 24-page booklet presents a well-rounded picture of the company's history and operations.

Among other things, the booklet states: "If, in the Biblical phrase, 'a servant is worthy of his hire,' Con Edison, the greatest public servant in the largest city of the world, should be a safe and useful place for your money to work for the public benefit. Our policy is to give the best service at the lowest prices consistent with a fair return to those who invest in our business."

According to the latter booklet, the New York utility's 154,368 stockholders exceed in number those of any other gas or electric operating company. Only nine American corporations of any kind have more.

## Utility chooses scholars

**T**WO 1949 WINNERS of The Connecticut Light and Power Company's scholarships have been selected for study in the College of Agriculture at University of Connecticut.

Established by the company in 1946 to encourage the continued development of Connecticut agriculture, the scholarships have now been awarded to seven young men and one young woman, each of whom receives \$300 during each year of the four-year course at a total annual cost to the utility company of \$2,400. The plan calls for graduation of two students per year in the future and reassignment of their scholarships to freshman winners.

A representative page from New York utility's "Report to Employees on Con-Edison Progress"

## National personnel conference arranged

**MORE THAN 100** industrial relations representatives from all over the country are expected to attend the National Personnel Conference of the Gas Industry at the Netherland Plaza Hotel in Cincinnati on November 28 and 29, 1949. Reports and experiences of several outstanding authorities in the personnel field will be featured.

The conference is sponsored by the Personnel Committee, Midwest Personnel Conference, and the Great Lakes Personnel Conference of American Gas Association, and by the Personnel Section of Southern Gas Association.

Leslie A. Brandt, chairman, A. G. A. Personnel Committee and director of employee relations, The Peoples Gas Light and Coke Co., Chicago, Ill. will open the two-day meeting. H. Carl Wolf, A. G. A. managing director, will bring a message from the Association, following which Dr. Robert K. Burns, executive officer of the Industrial Relations Center, University of Chicago, will discuss some of the studies conducted by the Center on supervisory training programs in industry.

W. C. Beckjord, president, The Cincinnati Gas and Electric Co., Cincinnati, Ohio will address the luncheon meeting on the importance of an integrated employee relations program.

During the afternoon of the first day, some of the pension problems confronting the gas industry will be explored by Eskil I. Bjork, vice-president, The Peoples Gas Light and Coke Co., and Dr. Rensis Likert, director of Survey Research Center, University of Michigan, will review some of the studies made by the Center on employee performance as related to the performance of their supervisors.

On the morning of the second day, the need for systematic wage and salary administration will be discussed by Dr. Jay Otis, director, Personnel Research Institute, Western Reserve University. Gas industry personnel experts will discuss their company's absenteeism experience and the methods they use for its control, including a report on the results of industry surveys on absenteeism and fringe benefit costs.

Three concurrent luncheon meetings of the Personnel Section of Southern Gas Association and the Midwest and Great Lakes Personnel Conferences of American Gas Association will be held on the second day of the conference. A round-table discussion will be held at each luncheon meeting. All conferees are invited to attend the luncheon meeting of the group of their choice.

Advance registrations at the Netherland Plaza Hotel should be made as early as possible.



Reference to the National Personnel Conference of the Gas Industry should be made in all correspondence with the hotel.

## A.G.A. book reviews 1948 fatal injuries

**ACCIDENTS** do not merely happen—they are caused; they result from a number of circumstances combining at the instant the mishap occurs. This combination can be foreseen and steps taken immediately to circumvent the accident.

This statement by W. F. Brown, Consolidated Edison Co. of New York, Inc., opens a newly-published American Gas Association booklet "Review of Fatal Injuries in the Gas Utility Industry During 1948." The work was prepared by A. G. A. Bureau of Statistics for

the Association's Accident Prevention Committee of which Mr. Brown is chairman.

Copies of this detailed report of actual tragic events involving the loss of human lives can be obtained free from American Gas Association headquarters.

## Tennessee Gas releases new color film

**THE DRAMATIC STORY** of natural gas from its formation deep in the earth millions of years ago to the delivery of this clean, efficient fuel to present day markets on the Eastern Seaboard is presented in "Gas Goes to Market," a new motion picture released by Tennessee Gas Transmission Co., Houston.

A 30-minute 16-millimeter film in sound

and color, the movie is now ready for showing to employees and civic, business and professional organizations, schools and other interested groups in the U. S. Booking and distribution is being handled by the company's public relations office in Houston.

Photographed and produced by Robert Bailey, veteran Houston photographer who

also photographed "Gas," the company's previous film, the new movie shows the tremendous engineering and construction feats accomplished in building a large diameter natural gas pipe line system across seven states. The camera unearths a hidden highway for natural gas which extends 1,364 miles from South Texas to West Virginia.

## Cambridge company improves oil gas plant

**EXTENSIVE ADDITIONS** to its oil gas generating plant at Cambridge, Mass. are being made by The Cambridge Gas Light Company.

For the past two years, the company has been distributing a high Btu oil gas of approximately 951 Btu. This gas replaced the former carburetted water gas with plant appliance conversions being effected in 1947. Existing water gas sets at the time were remodeled by The Gas Machinery Co., Cleveland, Ohio to manufacture straight oil gas by a process which that company had recently developed. This successful installation was reported and described by Hall M. Henry, vice-

president and director of gas operations, NEGEA Service Corp., Cambridge, Mass. in *Gas Age* Magazine, September 30 and October 14, 1948.

In 1949, the increasing availability and low cost of heavy, high-carbon oils made it desirable to remodel the existing equipment or to install new gas generating equipment to utilize these heavy oils. The Cambridge Company decided to rebuild one of the existing oil gas sets on the principle of the Hall High Btu Oil Gas Process, a PAR project sponsored by the Association's Gas Production Research Committee at the plant of Consolidated Gas Electric Light and Power Co. of Baltimore,

Baltimore, Maryland. This set will be a four-shell type.

A description of this equipment and results of the Baltimore tests have already been published (*A. G. A. MONTHLY*, November 1948, p. 27). The company has also arranged for construction of a two-shell set of new design.

Both the four-shell and two-shell sets were due to be completed for start of operations in September of this year, and arrangements have already been made for supply, storage, and handling of the low-cost heavy oil. Estimated cost of the current improvement program, including building changes, is somewhat in excess of \$350,000.

## Home service

(Continued from page 19)

home service and dealer contact conference was held by The East Ohio Gas Company in Cleveland, September 7-9, 1949. Numerous top executives—J. French Robinson, president; W. G. Rogers, vice-president; Karl Emmerling, general sales manager, and Harold E. Eckes, director of public relations, greeted the delegates and commented on different phases of their work.

Actual demonstrations by members of the home service department graphically pictured the general plan for school presentations, dealer floor work and club demonstrations in 1949-50. Jessie McQueen, A. G. A., was the luncheon speaker on Thursday and Helen Robertson, foods editor, Cleveland Plain Dealer, the following day. Jane Schleicher of The East Ohio Gas Company in Cleveland presided at the luncheon meetings.

High point of the conference was a visit to the gas company's ultra-modern television studio. Immediately adjoining the home service auditorium, the studio is constructed around a modern gas kitchen. Each operation in home service can be viewed from a glass-enclosed balcony, thus adding appeal for persons attending auditorium demonstrations.

Southern Gas Association's home service group met in two regional con-

ferences during September 1949. Delegates in the western area gathered in Austin, Texas on September 9, and those in the southeastern area met in Savannah, Ga. on September 12. Mary Nell Hovenga, Southern Union Gas Co., Dallas, was sponsor of the western conference, and Carolyn Davis, Nashville Gas and Heating Co., Nashville, Tenn. was sponsor of the Savannah meeting. Both programs concentrated on demonstration methods and techniques.

In Austin, Mildred Clark, Oklahoma Natural Gas Co., Tulsa, discussed gas and electricity in food preparation. Theater cooking schools promoted by The Ohio Fuel Gas Company were discussed at both meetings in a paper from Mary Huck, Columbus, Ohio. Mrs. Florence Richey, supervisor of economics in Austin public schools, described "What Cooperation Schools Would Like to Have From Home Service," and Harriet-Pruitt, Lone Star Gas Co., Dallas, outlined plans for the group's home service program at the S.G.A. annual convention.

In Savannah, Lucy Slagle, Atlanta Gas Light Co., Atlanta, Ga., presented a vivid demonstration entitled "Portraits in Cooking." This was the first demonstration to be given in Savannah Gas Company's brand new home service auditorium in the Trustees Village development.

An outstanding example of civic ac-

complishment, Trustees Village is a restoration of a development established in 1733. Adjoining the plant of Savannah Gas Co., Hansell Hillyer, the utility's president, has sponsored the restoration of old homes into modern apartments, homes and buildings for various activities of the gas company. The new home service building with its auditorium and offices now provides a handy clubroom for women's groups in the area. Modernization of this particular home service building has been supervised by Mrs. Julian Hartridge, director of women's activities.

Opening the Savannah conference, Ellen Miner, South Carolina Electric & Gas Co., Columbia, S. C., discussed "Gas vs. Electricity in Home Service Demonstrations." Her talk emphasized the value of open-mindedness in learning features of competitive equipment and adapting it with proper understanding in home service contacts. Thelma Holmes, newly appointed home service director in Savannah Gas Co., presented a typical school demonstration on the advantages of new gas ranges.

Present at both Southern Gas Association meetings were M. H. North, advertising and sales promotion director, Oklahoma Natural Gas Company and chairman, S. G. A. Sales Executive Committee, and R. R. Suttle, S. G. A. managing director.

## Canadian utility considers use of Texas gas

UNION GAS CO. OF CANADA, LTD., Chatham, Ontario is exploring the possibility of supplying natural gas from Texas to most of the larger cities and towns in Ontario between Toronto, Hamilton and Windsor, according to D. P. Rogers, president.

The company has an option from Panhandle Eastern Pipe Line Company for a quantity of gas estimated to be sufficient to meet the Ontario demands. Assuming the plan is economically possible it probably would take two to three years to obtain government approvals and carry out the required construction.

The option calls for the importation of Texas gas through the Union Gas Company

system for a period of 20 years. Because large and sudden demands for gas must be met for house-heating, the underground storage station of the company in Dawn Township, Lambton County, would be an important factor in carrying out the proposal.

Company representatives in the larger markets such as Consumers' Gas Co. in Toronto, United Gas and Fuel in Hamilton, and Dominion Natural Gas Company are now making preliminary studies as to how the proposal would fit into their markets and with their present supplies of gas. It is probable that natural gas would be mixed with manufactured gas and that straight natural gas would

not be served in those centres which have manufacturing facilities. Any final plans would be arranged so that supplies of natural gas available from Ontario fields would have a ready market.

Union Gas Company already has a contract, signed in 1944, with the Panhandle Company for importation of 5.5 billion feet of gas a year. This past summer small but steady deliveries of Texas gas were received under this contract. The 1944 agreement will remain in force until a new contract is operative in connection with the larger program, at which time it would be superseded.

## Strong theme for Metal Show exhibit

THE APPEALING THEME, "Economy-in-Production," will feature American Gas Association's large combined exhibit of industrial gas equipment at the National Metal Congress and Exposition in Cleveland, Ohio, October 17-24, 1949. Five thousand square feet

of space along one side of the lower Lakeside Exposition area in the Cleveland Public Auditorium has been set aside for this important display of modern gas-fired metal working equipment.

As a part of Metal Show week, the annual

Industrial Gas Breakfast will be held on Tuesday morning, October 18, in the Assembly Room of the Hollenden Hotel in Cleveland. E. L. Shaner, publisher of Steel magazine, an authority on metal-working and allied subjects, will address the breakfast gathering.

## Values in gas tars

(Continued from page 31)

of "free carbon" are such in all cases as to impair the value of the pitch resins for use in the plastics industry, and to limit their utility to fuel and road tar values.

Finally, it may be noted that undercracking is present but much less pronounced than overcracking, as shown by the generally moderate sulphonation residue in Figure 3 and the generally low mixed aniline points of neutral oils. Mixed aniline points under 20 are indicative of highly aromatic oils.

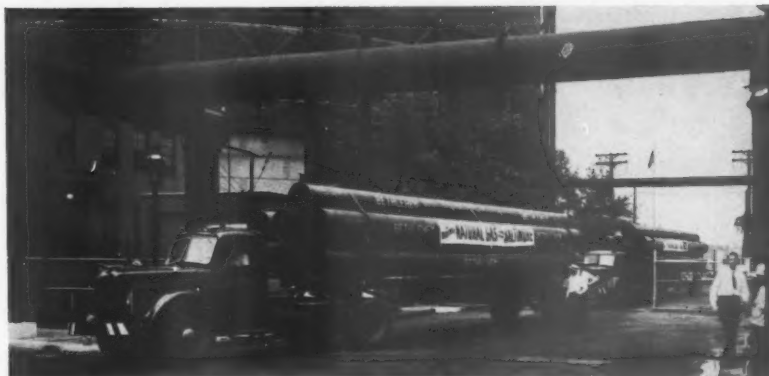
Observe also that there is considerable irregularity in the sulphonation residues or mixed aniline points as the amount of "free carbon" arises. These irregularities indicate differences in the relative amounts of over and undercracking. If all of the oil was cracked to the same degree, the sulphonation residue values in Figure 3 would decrease and then disappear as the "free carbon" values increased. The most homogeneous cracking is shown by samples C-1, R-2, and N-1, because the sum of the sulphonation residue and "free carbon" values are minimal: Conversely G-1 and P-5 tars represent the greatest range of under and overcracking.

In conclusion it may be pointed out that producers of base load high Btu oil gas have the largest stake in the possible credit enhancement of their by-product tars. It is perhaps questionable whether in cases of oil-gas operations for peak loads only, there is sufficient incentive for attempting to improve the tar credits. The economic possibilities of improved tar credits should be more attractive for base load high Btu oil-gas operations where the ratio of tar yield to gas is high.

An interesting question is posed by the possibility that the Hall High Btu process may increase the homogeneity of cracking and thus improve the yields and the quality of the tar by-products.

However, it must not be forgotten that the character of the oils available for cracking will always play an important role in the ultimate results. Therefore, the purpose of this paper is not to prescribe a specific course of action for any given local situation but to show the basic principles upon which progress toward better tar credits by the gas industry is dependent.

## Baltimore receives pipe for natural gas



First two loads of 26-inch pipe which will be used to bring natural gas to Baltimore via a 15.8-mile line connecting Consolidated Gas Electric Light and Power Co. of Baltimore's Spring Gardens plant with the natural gas line of Atlantic Seaboard Corp., a Columbia Gas System subsidiary

## New business office opened in Gettysburg



View of new business office opened in Gettysburg, Pa. by The Manufacturers Light and Heat Company. Summer-winter gas air conditioning is provided for the office and also for the New Freedom Gas Kitchen to the rear of the floor. Modern gas appliances are on display and others are "hooked up" for live demonstrations. The modern demonstration kitchen is something new for Gettysburg

## Water heater drive started in Oregon



C. H. Gueffroy, president, Portland (Ore.) Gas & Coke Co., addressing merchandising plumbers meeting which opened Pacific Coast Gas Association's water heater sales drive in Portland. Seated left to right: Frank Burfitt, Jr., Portland master plumbers' publicity and entertainment chairman; C. W. Steele of the gas company; J. B. Lewis, president, Portland and Oregon State Master Plumbers

## OBITUARY

### Bernard J. Mullaney



B. J. Mullaney

president of American Gas Association, 1929-30, and a member of A. G. A. Executive Board for many years, died September 2, 1949 in Paris, France. An outstanding gas industry figure for 20 years, Mr. Mullaney retired from active business life on November 1, 1937 as a vice-president, The Peoples Gas

Light and Coke Co., Chicago.

Present at the Association's first annual convention in 1919, he helped the same year to inaugurate systematic Association attention to advertising and publicity. From that time forward with few exceptions during his career, whenever an A. G. A. committee was formed to undertake some important activity for the gas industry, Mr. Mullaney's name was among the first included.

The story of his Association activity closely parallels the story of his work for The Peoples Gas Light and Coke Company. Joining the utility in 1917, he was appointed director of public relations in 1919 and elected vice-president in charge of industrial relations in 1924.

His early career centered around 16 years of newspaper work, following which he served in the advertising field from 1903-1916. This period was punctuated by four years as secretary to the mayor of Chicago and as commissioner of public works for that city.

During his gas industry career, Mr. Mullaney found time for numerous outside activities of a civic and business nature. He was a member of Illinois Public Utilities Association, serving as that group's president from 1932-1935, and of Illinois Manufacturers' Association, of which he was chairman of the public relations committee, 1933-1937. He was also the author of articles and delivered many speeches on advertising, publicity, industrial relations and public relations.

### Edgar R. Crofts

operating vice-president and a director, Rochester Gas and Electric Corp., Rochester, N. Y., and associated with that utility for more than 33 years, died September 9 after an illness of five weeks.

Mr. Crofts was born in England and came to this country at an early age. Graduated from Cornell in 1910, he was employed for several years in New York City in construction work. In 1916 he came to Rochester Gas & Electric Corporation as a design engineer in maintenance and later became head of that department. Assignments as purchasing agent, chief engineer and general superintendent of the electrical department followed.

until he was appointed assistant vice-president. In 1944 he was made a vice-president and in 1946 was placed in charge of all electric, gas and steam operations.

He was a member of American Gas Association, past-chairman of the Prime Movers Association and member of many national and local organizations.

### Thomas R. Dobson

vice-president, Jersey Central Power & Light Co., Asbury Park, N. J. died of coronary thrombosis on Sunday, September 18 at his home in Long Branch, New Jersey. His age was 49.

Mr. Dobson joined the Jersey utility in 1945 from Altoona, Pa. where he was associated for a number of years with Pennsylvania Edison Co., now Pennsylvania Electric Co., as vice-president in charge of sales. While with Jersey Central Power & Light Co., he directed all sales activities and was in charge of rates and commercial offices.

Early this year he successfully concluded a two-year effort to bring natural gas to the Jersey shore and recently had testified before FPC in Washington concerning plans to use the daily allocation of five million cubic feet of natural gas to his company. The project is to be completed by June 1950.

He had recently undertaken the modernization of his company's commercial offices and the creation of a new drive-in office at Seaside Park, New Jersey. Under Mr. Dobson's direction, the company's rate structure was simplified and the number of gas and electric tariffs reduced to a minimum.

He was a director of New Jersey Gas Association.

Surviving are his mother, Mrs. Nellie Rose Dobson; his wife, Mrs. Mary Salmond Dobson; a son, Richard, an engineer at Coulee Dam, Wash.; a daughter, Mrs. Warren Gilbert, Altoona; another daughter, Joan, at Penn State College, and one grandchild.

### Raymond L. Presbrey

vice-president and chief engineer, Boston Consolidated Gas Co., Boston, Mass. and an active member of American Gas Association, died suddenly at his home in Dorchester, Mass. on September 8.

Mr. Presbrey began his gas industry career with Boston Gas as a cadet engineer in 1921, immediately following his graduation from Massachusetts Institute of Technology. In 1924, he became assistant superintendent of Boston Gas Company's plant at Everett, Massachusetts. A year later, he was made plant superintendent and subsequently held the post of assistant to the chief engineer, and in 1947 became vice-president of the company in charge of engineering, manufacturing and construction.

His A.G.A. activities included membership on the Association's Gas Production Research



R. L. Presbrey

Committee, Managing Committee of the Manufactured Gas Department, and the A.G.A. Committee to Study Relations with the LP-Gas Industry.

Mr. Presbrey was also a director of New England Gas Association and a member, Guild of Gas Managers.

### Pierre C. Lurie



P. C. Lurie

associate chemist, Institute of Gas Technology, Chicago, was drowned July 8 in Holland, Mich., when his canoe capsized on Lake Macatawa where he was spending the week end.

Mr. Lurie had contributed substantially to the success of the Institute's catalytic gasification studies for the Gas Production

Research Committee of American Gas Association. Upon joining the Institute in April 1945, he was assigned to Project CPR-1B, laboratory research on the catalytic gasification of propane and higher hydrocarbons to produce completely interchangeable peak load gases. When that project was completed, he was transferred to the closely related study of sulfur resistant catalysts, Project CPR-7, also sponsored by the Gas Production Research Committee.

Mr. Lurie was appointed supervisor of the Institute's catalytic gasification pilot plant at Chester, when that unit was placed in operation as Project CPR-1C in January 1947. He returned to Chicago this spring to supervise further research on catalytic gasification in a unit to be erected at the Crawford Station building recently provided for Institute pilot plant research by The Peoples Gas Light and Coke Company.

Mr. Lurie was co-author with other Institute of Gas Technology staff members of three articles on the catalytic gasification of hydrocarbons, all of which appeared in the A. G. A. MONTHLY.

Mr. Lurie graduated from University of Illinois with a Bachelor of Science degree in 1944. Prior to joining the Institute staff, he was employed by General Electric X-Ray Corp., Graver Tank Co., B. F. Goodrich Company and Podbielniak, Inc.

He is survived by his father, Arnold N. Lurie; a brother, Frederick G. Lurie; and his maternal grandmother, Mrs. Josephine Serri.

### Philip F. Davis

a system commercial manager for Consolidated Edison Co. of New York, Inc., died Monday afternoon, August 15, in New York City.

A graduate of University of Syracuse, Mr. Davis was associated, from 1925-1932, with Northern New York Utilities at Watertown, N. Y., then with the New York office of Niagara Hudson Power Company. In 1932 he joined Westchester Lighting Company, Mt. Vernon, N. Y., where he became an assistant manager in the commercial department. From 1935 to 1936 he was commercial manager, Utica Gas and Electric Co., Utica, N. Y.

## Ruthenburg made Servel board chairman

LOUIS RUTHENBURG, president, Servel, Inc., Evansville, Ind., has been elevated to the newly-created post of chairman of the board. He will continue as chief executive officer of Servel, manufacturers of gas appliances.

The new president is W. Paul Jones, former Servel sales executive.

Mr. Ruthenburg is a former director of American Gas Association and is currently a member, A. G. A. Advisory Council. He has served more than 15 years as president of Servel and during that period greatly increased the company's prominence in the field of household refrigeration. During his ad-

ministration, the company introduced two new gas-fired appliances to the field, an all-year gas air conditioner and a ball-type water heater. He will devote his entire time to the management of Servel.

Mr. Jones has been in the refrigeration industry for 28 years and was formerly advertising manager for Servel. He also served the company as assistant general manager of the commercial refrigeration division leaving the Evansville company to become executive vice-president of Fairbanks-Morse Home Appliances. He joined Philco in 1938 as president, Philco Refrigerator Company. When Philco Corporation was formed in 1940 he was



Louis Ruthenburg



W. P. Jones

named vice-president and director in charge of the company's refrigerator division.

## Public Service man wins McCarter Award

AMERICAN GAS ASSOCIATION'S coveted McCarter Medal and Certificate for successful resuscitation were presented August 10 to George W. Abbott, street foreman in the Trenton gas distribution department, Pub-

lic Service Electric & Gas Co., Newark, New Jersey.

Actual presentation was made by Henry W. Nicolson, general superintendent of distribution for gas. Also present at the ceremony was

William J. Alexander, director of safety education, representing A. G. A. Accident Prevention Committee. Mr. Abbott performed the successful resuscitation last November by applying the Schafer Prone Pressure Method.

## Personal and otherwise

### White to resign from LP-Gas Association

HOWARD D. WHITE, executive vice-president, Liquefied Petroleum Gas Association, will resign effective October 31 to become associated in a newly organized business at Albuquerque, New Mexico.

He will be one of three owners of Perlite Development Corp., which will manufacture industrial furnaces for the processing of perlite and develop new applications for the mineral—a volcanic glass used principally for light-weight plaster aggregates, building

blocks, insulation, fireproofing and soundproofing.

Mr. White, who will serve as secretary and promotion director of the new company, has spent the last 17 years of his business career in executive capacities with trade associations. He was formerly engaged in sales promotion and public relations work. In the four years he has been executive vice-president of Liquefied Petroleum Gas Association its membership has more than trebled.

## Manufacturers Light & Heat Co. promotes

FIVE PROMOTIONS of supervisory personnel have been announced within the gas distribution department of The Manufacturers Light and Heat Co., Pittsburgh.

William J. Kretzler is new general service manager. He has a similar position in all the associated gas companies in the Pittsburgh Group of The Columbia Gas System, Inc.

This is a new position created to assure maximum efficiency in all matters pertaining to gas appliance installation and service. Reporting directly to Mr. Wilson, the new gen-

eral service manager will assist the various district distribution managers with organization, personnel, training, methods and special service problems related to the department's appliance service section.

Mr. Kretzler has risen through the ranks with The Manufacturers Light and Heat Company. For the last two years, he has been service manager in two distribution districts in the Pittsburgh area.

Julian N. Estep is the new local manager for the gas company in Gettysburg, Pa., suc-

ceeding the late Eugene C. Williams.

Mr. Estep joined The Columbia Gas System, Inc. in 1938 and has served with Natural Gas Co. of West Virginia. In May 1948 he was named chief clerk for the associated Gettysburg Gas Corp., which earlier this year was absorbed by The Manufacturers Light and Heat Company.

Walter Black is the new service manager for the company's distribution district Number 5, succeeding Mr. Kretzler. He has been with the company since 1934.

## Jones honored by Distribution Council

GEORGE S. JONES, JR., vice-president and assistant to the president, Servel, Inc., Evansville, Ind., has been named chairman of the National Distribution Council according to an announcement during a joint luncheon meeting of the Council and National Sales Executives held at Hotel Statler, Washington.

The council is the official advisory body to the Commerce Department on selling, marketing, and distribution materials, and is composed of past and present leaders of national

organizations in the field of distribution. The organizations include selling, sales promotion, advertising, sales training, wholesaling and retailing.

Mr. Jones succeeds L. A. McQueen, vice-president, General Tire & Rubber Co., who became chairman of the Executive Committee of the National Distribution Committee.

Mr. Jones, a past-president of National Federation of Sales Executives, has been vice-

president of Servel since 1936. Prior to that time he was district manager for Servel, Inc.

He is former chairman of the Home and Industry Committee and is active in American Gas Association.



G. S. Jones, Jr.

## Grimstad named Pittsburgh rate manager

**R** C. GRIMSTAD has been appointed manager of the rate department, Philadelphia Company and subsidiary companies (Duquesne Light and Equitable Gas Companies) succeeding the late Newell E. French.

Mr. Grimstad graduated from University of

Wisconsin in 1921. Mr. Grimstad entered the employ of Duquesne Light Company on May 24, 1926, as a sponsor engineer in the engineering department. He has since served in the capacities of section engineer and supervisor, engineering department; industrial sales

representative, industrial sales department; and rate analyst and director of rate research, rate department, the position he held at the time of his present appointment.

He is a member of Engineers' Society of Western Pennsylvania.

## Financing study

(Continued from page 6)

tive bidding has been very limited. There is a general belief, however, that where special circumstances (such as lower than investment grade rating, or temporary low earning power due to special circumstances) affect an issue, a negotiated sale or a private sale is more advantageous, even as to price. This is due to the fact that an underwriter can afford to spend a substantial amount of time and work on an issue, if he is sure of his commission, whereas if he is only one of four or five on an issue, he cannot afford to do an "individualized selling" job to get the best price for the issuer.

The comparatively weak market for preferred and common stocks since mid-1946, particularly in the medium and lower grades, has made competitive bidding unsatisfactory to the banker, the investor, and the issuing company. The need for individualized selling and importance of timing have resulted in substantially greater amounts of both preferred and common issues being sold during 1947 and 1948 under negotiated placement, than under competitive bidding.

In view of current market conditions and the importance of obtaining preferred and common stock financing with as little hindrance as possible, the facts, in the opinion of the joint committee, justify the following suggested changes:

Temporary suspension of the applicability of SEC Rule-U-50 to sales of gas and electric utility preferred and common stocks and adoption of a new rule providing that such sales may be made by any method, providing that the Commission retains jurisdiction over the reasonableness of prices and spreads. The suspension should be made permanent if, after a trial period of two years, the new procedure is found satisfactory. It could be revoked at any time if the Commission found there was a return to conditions which it considered unsatisfactory.

An increase of the SEC's exemption

from competitive bidding on debt transactions to \$3 million in any one calendar year, from the present level, \$1 million.

*Characteristics of securities*—Mortgage bonds have established fairly definite patterns with respect to sinking funds, maintenance and replacement funds, dividend restrictions and certain other features.

Debenture issues have been too few to establish a particular pattern, and the indentures under which they are issued are hand-tailored to meet the problems of the particular companies involved. Generally, substantial sinking funds are required, the indentures contain more restrictive provisions, and interest rates are higher than rates for first mortgage bonds.

Convertible debentures have been used to some extent in financing programs. Depending on the conversion features, interest rates compare favorably with rates of first mortgage bonds. They are generally offered to common stockholders, and the subscription record has been extremely high.

Several underwriters have indicated that a sinking fund provision in a preferred stock is worth about 25 basis points. That view is not borne out by the committee's study. Preferred stocks with a sinking or purchasing fund, which were issued since 1947 and reviewed by the committee, have generally been selling at higher yields than straight preferreds. Such funds have generally been provided to make the issue acceptable to potential insurance company purchasers, because of the statutory requirements affecting their valuation of preferred stock portfolios.

Frequently, common stocks of utilities have been offered to outstanding stockholders prior to the public offering at a price below current market. This enables the stockholder to maintain his proportionate equity in the enterprise. In most instances, the offering price was within 20 percent of the current market price. During the offering period there were no substantial variations in the price of

the stock, and the price at the close of the offering period did not vary substantially from the price one week before the offering period.

*Impact of federal taxation on utility financing*—Federal taxation has had a substantial effect on the financing program of utility companies. Decline in the ability of the higher income groups to save, resulting from the tremendous increase in personal income taxes, has had an important influence in restricting the sales of corporate equities.

Another effect of these heavy taxes has been to shift investment preference to tax exempt state bonds. For a single person with an income over \$60,000, there is no difference in yields between New York State tax exempt bonds and an average common stock investment yielding 6.4 percent before taxes.

Two decades ago a substantial amount of savings from the middle income group went into equities, whereas this group now seeks security in additional insurances, pension plans and the like. These monies are channelled into institutional hands which are generally limited to investment in debt and to a small amount of preferred stocks. When combined these limitations result in a shortage of equity capital.

Tax relief for privately owned utilities would undoubtedly help to induce utility equity investment.

Theoretically, all utility taxes are passed on to consumers; because of inevitable lags in adjusting rates, part of the incidence falls on investors. This is proportionately more onerous for utilities than for industry as a whole because of the higher equity investment required for each dollar of sales.

Treatment of bond interest as a deduction from taxable income while not according similar exemption to common stock dividends encourages financing through debt rather than equity issues.

Some method of mitigating double taxation of profits at the corporate and individual level would also help utility equity investment.

## Associated organization activities

### Mid-West group holds gas conference

A RECORD REGISTRATION of 239 persons was established for the twenty-sixth Mid-West Gas School and Conference held at Iowa State College, September 6 and 7 under the joint auspices of Mid-West Gas Association and Iowa State College.

A serviceman's school on the gas air conditioner, staged by Servel, Inc., Evansville, Ind. was a special feature of this year's program. Forty servicemen from Mid-West utility companies completed the two-day course under the tutelage of Servel instructors.

Vital aspects of utility operation, distribution, utilization, production and metering headed the agenda for the regular conference program. Guest speakers included: C. George Segeler, utilization engineer, American Gas Association; A. B. Lauderbaugh, chief gas engineer, The Manufacturers Light and Heat Co., Pittsburgh, Pa.; Robert B. Allen, assistant to superintendent of distribution plant, Michigan Consolidated Gas Co., Detroit; B. A. Stockton, plant superintendent, The Gas Service Co., Kansas City, Mo.; C. E. Blome, Mid-West division manager, Williams-Wallace Co., San Francisco.

Also K. W. Stookey, president, The Gas Machinery Co., Cleveland; J. T. Pruet, engineer, American Meter Co., Chicago; C. D. Attaway, superintendent of measurement, Natural Gasoline Division, Arkansas Fuel Oil Co., Shreveport, La., and Charles Stewart, research engineer, Sprague Meter Co., Bridgeport, Connecticut.

Following the convention program members of the association on September 8 were guests of Fisher Regulator Co., Marshalltown, Iowa during a tour through the company's manufacturing plant.

Members of the executive council also discussed plans and program for the association's forty-fifth annual meeting and convention to be held at Lowry Hotel in St. Paul, Minn., April 10-12, 1950.

### Wide acceptance for "CP"

● CP (certified performance) ranges sponsored by the gas utilities and Gas Appliance Manufacturers Association include, by requirement, all of the new, modern automatic features. These ranges have received customer acceptance unequalled by any other cooking appliance.

## Gellert made Pacific Coast president

N. HENRY GELLERT, president, Seattle Gas Co., Seattle, Wash., was elected president of Pacific Coast Gas Association at the fifty-sixth annual meeting held in Santa Barbara, Calif., September 7-9, 1949.

Other new officers include: E. G. Lawson, president, Pacific Public Service Co., San Francisco, as vice-president; D. G. Martin, general auditor, Pacific Gas & Electric Co., San Francisco, as treasurer, and the following directors: T. T. Arden, C. P. deJonge, A. E. Englebright and R. T. Richards.

Presided over by A. F. Bridge, president, of the association and also president and general manager, Southern Counties Gas Co., Los Angeles, the program featured addresses by numerous gas industry and guest speakers on topics of outstanding current interest. James S. Moulton, vice-president and executive engineer, Pacific Gas & Electric Co., told the delegates that at present some 90 percent of residential natural gas customers use gas at least for a part, and in most instances for all or nearly all of their space-heating requirements.

He cited measures being taken by West Coast companies to supply more gas to customers as demands increase and listed numerous pipeline projects now planned or under way which will provide increased service for their customers.

An impressive picture of the numerous functions performed by American Gas Association was "painted" by John W. West, Jr., A. G. A. assistant managing director. Mr. West described the operation of the gas industry's PAR Plan and the extensive advances it has developed in the promotion, advertising and research fields.

Research should include careful case studies of other utility operations and also continuing consultation with American Gas Association and Gas Appliance Manufacturers Association, according to Louis Ruthenburg, chairman of the board, Servel, Inc., Evansville, Indiana.

"To many gas utilities these splendid associations represent 'acres of diamonds' lying untouched at their doorsteps," he declared.

Speaking on "Business Management in a Changing Economy," Mr. Ruthenburg presented a convincing case for a "speedy revival of the lost arts of salesmanship."

"Salesmanship, comprehensively defined," he stated, "is the vitally important element of our business tool with which we shall solve our major problems in a changing economy. In a very real sense, salesmanship is the keen cutting edge of the complex business machine—indiscribably important—but useless and without dimension unless it is backed by the other essential elements of a business machine and unless it is given proper propulsion and direction by management."

In another important general sessions address, Edwin L. Hall, director, A. G. A. Testing Laboratories, outlined recent developments in providing peak load gas.

"There is still," he remarked, "a distinct need for a better method by which gas engineers may determine whether or not the gases they produce can be used on their systems by some means other than trial and error. Moreover, this need will increase as production, distribution and utilization problems become more complex."

Eugene Bashore, vice-president, Blyth & Co., Inc., New York, N. Y., discussing "New Money and Our Expanding Facilities," outlined various plans for financing new construction of gas company systems.

"Average use per customer continues to increase as more space heating appliances are installed," he added. "The average annual use of residential customers on Pacific Gas and Electric Company's system increased from 29.8 Mcf per customer in 1932 to 85.4 Mcf per customer in 1948, a gain of 187 percent. This is typical of California experience," Mr. Moulton stated.



Pacific Coast Gas Association officials: (Seated, l. to r.) Clifford Johnstone, managing director; A. F. Bridge, Southern Counties Gas Co., president; N. Henry Gellert, Seattle Gas Co., president-elect; (standing) George W. Smith, Southern Counties Gas Co., chairman, convention arrangements

## Bonus Plan

(Continued from page 16)

knock, he may try a call back while still in the neighborhood in the hope that the occupant may have returned from a short trip, or if incentives are provided, may make evening calls to pick up readings where occupants are habitually absent during daytime working hours.

Some utilities allow arbitrary numbers or percentages of skips. Our own utility allowed increasing premiums for lower skip percentages, but the crux of meter readers' objections to the old plan was the variation in normal skip percentages for different routes, as much as from 1.2 percent to 26.1 percent as previously illustrated. The fact that the labor cost alone per skip reading assigned was 9.6 cents or nearly double the 5.6 cent direct labor cost per reading made on the regular trips over routes, suggested that on a comparative basis the number of readings skipped was twice as important as the number of readings made.

Deducting twice the number of readings missed from the readings made, a simple calculation easily understandable by the meter readers themselves, gives a single performance figure for a route which recognizes these two most important features. For lack of a better term we have called such a figure the route "score."

**Average performance in prior periods**—Meter reading route revisions incidental to changing from mixed to straight natural gas during 1947 made experience of such earlier years worthless as standards for 1949 meter reading performance. In going over details for particular routes, it became evident that some adjustments would have to be made in 1948 average "scores" to be used as bases of comparisons for bonus purposes. Where routes had been materially lengthened or shortened near

the end of 1948, "scores" were adjusted by applying average skip percentages to the later number of meters assigned. More important were eliminations from averages of abnormally poor results by new men and/or readers subsequently released for inefficiency. Specific examples of adjustments made in determining some base "scores" are shown below.

**Bonus rates**—Pay roll costs of regular route reading in 1948 averaged 8.8 cents per net "score." Test computations covering March, April and May 1949 indicated that total bonuses at the rate of 7½ cents per "score" in excess of 1948 standards would amount to about the same as total bonuses paid under the old plan. As to errors, the readers' own suggestion for a 50 cent bonus deduction for each error in excess of standard allowances was accepted as reasonable.

**Rules for new meter reading bonus plan**—The following rules for a new meter reading bonus plan were accepted by management and the meter readers for a three months trial.

(1) **Basis**—Bonus pay in addition to regular salaries shall be based on regular route reading performance in excess of standards set for individual routes, which standards in turn are based on average performance during 1948.

(2) **"Scores"**—Performance in respect to each route shall be compared on the basis of "scores" computed by deducting twice the number of readings skipped from the number of meters read. The 1948 average "score" used as the standard may be modified as follows:

a. If the average 1948 "score" for a route was unusually low because of poor quality of work the management shall eliminate the subnormal results in computing the standard.

b. If the average 1948 "score" for a

route was unusually high because of readings by the most efficient readers working overtime to make larger bonuses, the management shall make a downward adjustment in setting the standard.

c. In cases where routes have been rearranged, the management will set tentative "scores" subject to revision in the light of later experience.

d. When requested, the management shall consult with meter readers' representatives in making any upward or downward revision in standard "scores," but the decisions shall be made by the management.

(3) **Unfavorable weather**—In cases of extremely unfavorable weather, the supervisor shall have the right to decide at the end of a day that work for that particular day shall be excluded from bonus computations.

(4) **Bonus rates**—Individual bonuses shall be computed each month at the rate of 7½ cents for each net gas meter reading "score" and at the rate of 11 cents for each water meter reading net "score" in excess of the standard "score" for the same route. Any deficiencies in "scores" for different routes shall be deducted from excess "scores" in computing the total bonus.

(5) **Deductions from bonuses for errors**—From the bonus otherwise payable, a 50 cent deduction shall be made for each error in excess of one for each three water routes read or in excess of one for each five gas routes read during the month.

**Bonus calculations under new plan**—Bonus calculations under the new plan require little more than assembly of data from daily reports previously kept. The two major steps in recapitulation are illustrated on the next page.

**Advantages and disadvantages of new plan**—Although preliminary reactions of employees appear favorable, the plan has been in effect for too short a period for accurate judgment as to its merits. Some difficulty will arise from time to time when particular routes are rearranged but such situations may be met either by temporary elimination of a route from bonus computations or by setting up a tentative "score" subject to adjustment after more months of experience.

One basic advantage of the new plan which was used following preliminary test computations, and may be used to meet future changes in operating condi-

Total Number of Meters			Number of Skips			"Scores"			
Route No.	Average	End of Year	High	Low	Average	1948 Average	Add/ (Deduct)	Adjusted Base	Reason for Adjustment
92	204	203	48	16	29	117	14	131	Poor work
93	196	191	50	25	36	88	23	111	Poor work
264	269	279	23	3	14	227	5	232	More meters
344	188	198	64	33	49	41	15	56	Poor work
405	183	177	11	0	5	168	( 5)	163	Fewer meters
561	163	165	57	15	33	64	21	85	Poor work

ONLY

## Economic ignorance

(Continued from page 22)

"That system won't work," and very likely it won't. But the public says, "That shows the man is greedy and selfish; he is against the good things I want."

The collectivist understands this selling principle well and he uses it irresponsibly but with tremendous effectiveness. Management can use the same principle without stooping to demagoguery or rash promises. Here is how it is done.

Simply begin all dissertations by defining the goal. Say, in effect, "This is the goal we are trying to reach." Make frequent references thereafter to goals. Then say, "This is what we are doing to reach the goal." Notice that under this formula no one is required to promise anything except to promise to try.

*Repeated identification of industry's means with the public's goals is the most potent device yet invented for selling a leadership or a social philosophy.*

Companies are spending money and good executive time and effort on this important problem of putting ideas into people's heads. I want to emphasize its communications power and to indicate how by the use of the proper techniques it can dramatically step up the effectiveness of its communications dollar.

The employee publication is a tremendously important channel of communication. When the Index studied employee reaction to five different company papers, we found readership very high—50-70 percent had read the plant publication within a week of release; 75-90 percent said money spent for the publication was well spent; 66-90 percent said you can believe what you read.

If the employee publication is such an important channel of communication from management to employee, what is management doing with it?

The editorial fare of 100 representative publications across the country contains lots of articles about the recognition of promotions, employee hobbies, etc. Ninety-four out of 100 publications examined contained material of this kind. Much space is devoted to personals and chit-chat, news about the divisions, sports, stories, talk about the

product, employee benefit articles, admonitions on safety and health, but only 36 out of 100 had articles interpreting company economics, telling the story of profits, or capital, and how the system works.

Why this dearth of articles on company economics? There are two main reasons:

First, because we are afraid of that horrible word, "propaganda." We need to get our thinking straight on this issue. Employees hate preaching and pontification and attempts to mislead, but they place high value on honest information about the company and on management's views.

In five companies we asked employees, "What do you think are the company's own reasons for publishing the employee publication?" Here are the responses from one company which typifies the five:

Keep employees informed	55%
Improve morale	33%
It's good public relations	19%
Improve management-labor relations	15%

Only one-half of one percent say the purpose of the employee magazine is to propagandize, to tell employees things that are not so.

### Job satisfaction

If spiritual as well as economic ingredients are necessary for job satisfaction, then a good plant publication which works to make employees feel they belong, which tells employees that the company seeks to play fair, which indicates how the company dollar is divided, and which gives insight into how the economic system works, truly contributes to job satisfaction. Throughout industry generally the plant publication, we think, could be about three times as effective as it is in interpreting the company. But to be effective, editors must get day-by-day help from the top and it must be explicit policy that the publication is actively to interpret company philosophy and to explain to its readers the basic economics of the company and the capitalistic system.

The Index studied the editorial contents of 60 above-average plant publications, and interviewed company officials about the policy thinking controlling their publications.

Among 19 companies who have laid

down the explicit policy that the publication should actively merchandise management's philosophy, 17 publications were found to contain large amounts of editorial material about the company. Among those companies with mild or no directives from the top to interpret the company, the publications were devoted mostly to chit-chat and stories with little or no economic educational editorial material.

The conclusion is evident: If management wants the employee publication to explain and interpret the company, this policy must be clearly laid down at the top.

Now some comments on one further segment of a company's information system—that having to do with plant community relations. There are many ways to distribute ideas in a plant-community—through foremen and employees, through press releases and advertising, through sending company publications to thought leaders and holding meetings with them, and through plant visits.

The Index has been working for two years on a radically new conception of plant visits. The power of this new communications technique is so great that I want to review some of the findings.

People have a great curiosity about what goes on behind the factory walls. Three out of four people say they would like to go through the plant if the invitation were extended. The plant visit is a potent device for telling the company story because the attention of all the visitor's senses—sight, hearing, smell, taste, feel, are captured at once, and made to serve as a vehicle for ideas.

Checks show that open house as now conducted does produce much good will among townsmen and also gives them some conception of technology.

The main criticism of current techniques of holding open house is that they teach only technology. They give practically no information about the sociology of the company, the flow of capital—to buy machines, the compensation of capital, the nature and amount of profit, and so on. They give no reason-why copy to stimulate in people a brand preference for capitalism.

The Index decided to conduct an experiment to learn how to teach the sociology of industry through plant visits. One of our Index clients—American Type Founders of Elizabeth, New Jer-

## Round Up mailing reaches flood stage



Mailroom staff at American Gas Association headquarters handling flood of promotional material which has been prepared to help gas companies throughout the country join in Old Stove Round Up

sey—agreed to collaborate with us. High school teachers, ministers, and other thought leaders in Elizabeth were invited to the factory for a tour.

The visitors were first assembled in a conference room and told what they were about to see. Particular stress was laid on the contribution of ATF to the community, the number of people employed, on the employee's share of the ATF dollar, on employee benefits, on the dividend payments to stockholders, on the size of ATF profits.

A machine was specially built with lighted panels that were switched on one at a time to show the division of the ATF dollar. Visitors were then taken through the plant by guides. Signs had been put up along the route. Signs on machine tools also showed how much money had to be invested for that machine. This tactic, incidentally, yielded an important by-product, namely, that it gave employees a vivid idea of the capitalistic foundation of their jobs.

Two weeks after the tour, Index interviewers called on plant visitors and quizzed them on what they had learned.

The results are remarkable in every sense of the word:

- 92 percent named dividends correctly
- 87 percent named one or more employee benefits
- 73 percent gave the correct number of employees
- 72 percent gave employee share of the dollar
- 56 percent named a company profit figure below four percent.

Did these visitors say, "It's all a lot

of propaganda?" Indeed they did not. On the contrary, listen to what they said in response to our question, "What were the main ideas you came away with?"

"The tour tends to show that corporations are not the soulless monsters we are sometimes led to believe. It is a matter of getting information"—Minister.

"I was surprised at the small percent that management retains from the earned dollar and the fact that generally industry can aid the community"—High school teacher.

We conducted the same experiment at the Walter Baker Chocolate Plant in Dorchester, Mass. a division of General Foods. The visiting groups in that experiment were housewives.

Here is the playback two weeks after the plant visit:

- 98 percent named specific employee benefits
- 87 percent said machines increase jobs
- 85 percent said Walter Baker is a good place to work
- 68 percent gave correct number of employees
- 67 percent said company is people, tries to serve employees, stockholders, and customers
- 58 percent said employees get more than stockholders.

The formula for plant visits that teach sociology includes dramatical visual devices, verbal interpretation by well-informed guides, repetition of central themes and careful organization.

Companies generally are quite unaware of the potency of this method of teaching the principles of capitalism, be-

cause a national check-up shows that relatively few companies ever bother to take people through the plant. Seventy-four percent have held no plant tours during the past year. Twenty percent held tours, but attempted to communicate no socio-economic message. The Index could find only six percent of companies holding plant tours that contained some degree of socio-economic concept.

*Plant visits are without doubt the most important form of communication that we have yet observed. Plant visits should be used to teach the principles of capitalism. The technique for doing this is now known.*

I have attempted to underscore three or four basic ideas.

The first is that the job to be done by industry in merchandising its leadership is important. Forty percent of the public are partial collectivists. There is great misunderstanding of industry's motives and the economic rules under which companies must work. Management is in a great competitive battle in the market for leadership. Either management will out-perform and outsell its competition or it will lose its position of leadership by default. This issue is just as bald as that.

Second, the job to be done is large. All of us know that it takes millions of dollars of advertising and sales effort to build and maintain public support for free market economy. Most companies have barely scratched the surface in this merchandising effort.

Finally, industry's potential power is enormous. Think of this power in connection with an idea such as "profits are fair." Let 500 or even 100 companies take up that theme, let them tell people in their plant communities that profits are fair and immediately the distribution network rises by geometric ratio. Let the idea be distributed systematically and skillfully through each company's plant city information system, to foremen and thence to employees and townsmen, to employees through these various media, to plant city thought leaders and others through advertisements, plant publications, company letters, and in plant tours.

If the truth about industry is merchandised skillfully and systematically this way, management will have all the public support it needs to get on with its job of making America a better place in which to live.

## New A.G.A. members

### Manufacturer companies

Beach Foundry Limited, Ottawa, Ontario, Canada (D. J. Beach, president)  
 C & S Manufacturing & Supply Co., Dallas, Texas (J. V. Campbell, president)  
 Coon Engineering Corp., Denver, Colorado (James G. Coon, president)  
 Custom Industries, St. Clair Shores, Mich. (Lee C. Sassmanhausen, owner)  
 The Frymaster Corp., Shreveport, La. (P. F. Ratcliff, president)  
 General Automatic Corp., Baltimore, Md. (Claude W. Schaefer, president)  
 Gilbert & Barker Manufacturing Co., West Springfield, Mass. (H. F. Tapp, manager, research & development)  
 Kindl-Aire Corp., Cleveland, Ohio (Michael Berry, president)  
 Lovell Mfg. Co., Erie, Pa. (Edward C. Doll, president)  
 Magic Servant Products, Detroit, Mich. (Ben Moore, chief engineer)  
 Moncrief Furnace & Manufacturing Co., Dallas, Texas (Ben F. Crow, president)  
 National Engineering & Mfg. Co., Kansas City. (Vernon F. Rodick, vice-president)  
 O'Halloran Industries, Detroit, Mich. (E. P. O'Halloran, president)  
 Pacific Gas Steam Radiator Co., Los Angeles, Calif. (Robert P. Caben III, owner)  
 Plymouth Furnace Co., Cleveland, Ohio (C. E. Stone, agent)  
 Queen Stove Works, Inc., Albert Lea, Minn. (Alfred Johnson, engineer)  
 Radiation Furnace Corp., Benton Harbor, Mich. (Robert Volk, secretary)  
 St. Louis Furnace Mfg. Co., St. Louis, Mo. (L. O. Welch, president)  
 Sproco Manufacturing Inc., Gardena, Calif. (M. J. Freel, general manager)  
 Torrance Steam Generator Co., Los Angeles, Calif. (J. W. Fitts, partner)  
 U. S. Machine Corp., Lebanon, Ind. (Herman E. Winkler, vice-president)

### Individual members

Robert B. Allen, Michigan Consolidated Gas Co., Detroit, Mich.  
 E. M. Anderson, The Gas Service Co., Kansas City, Kan.  
 Lewis C. Armitage, Welbilt Stove Co., Inc., Maspeth, N. Y.  
 Mrs. Vera C. Ault, Public Service Co. of Colorado, Denver, Colo.  
 Jack M. Averett, Gas Light Co. of Columbus, Columbus, Ga.  
 Philip B. Baas, Brooklyn Borough Gas Co., Brooklyn, N. Y.  
 Rex A. Bacon, The Ohio Fuel Gas Co., Columbus, Ohio  
 Alex H. Banko, Bryant Heater Div., A. G. E., Inc., San Francisco, Calif.  
 James D. Barnes, Piedmont Gas Co., Hickory, N. C.  
 Robert P. Bartlett, Southern California Gas Co., Visalia, Calif.  
 Eugene Bashore, Blyth & Co., Inc., New York

K. M. Bassett, Arizona Edison Co., Inc., Yuma, Ariz.  
 T. C. Bebb, Arizona Edison Co., Inc., Globe, Ariz.  
 Dr. Roland F. Beers, Rensselaer Polytechnic Institute, Troy, N. Y.  
 J. T. Blackshaw, Southern California Gas Co., Los Angeles, Calif.  
 H. M. Bradford, Jr., Lone Star Gas Co., Dallas, Texas  
 Harry R. Brough, Mountain Fuel Supply Co., Salt Lake City, Utah  
 Patrick H. Butler, Jr., Washington Gas Light Co., Washington, D. C.  
 Franklin M. Cantrell, Jr., Ebasco Services Inc., Gallatin, Tenn.  
 Geo. L. Catey, Pacific Gas & Electric Co., Chico, Calif.  
 Wm. D. Chambers, San Diego Gas & Electric Co., La Mesa, Calif.  
 Mrs. Anne M. Christensen, Pacific Gas & Electric Co., San Francisco, Calif.  
 Einer V. Christensen, Wisconsin Public Service Corp., Green Bay, Wisc.  
 W. Earl Claycomb, Public Service Co. of Colorado, Denver, Colo.  
 Roger B. Cobb, Iroquois Gas Corp., Buffalo  
 James R. Coleman, General Controls Co., New York, N. Y.  
 Frank A. Colt, Pacific Gas & Electric Co., Marysville, Calif.  
 William M. Common, United Gas & Fuel Co. of Hamilton Ltd., Hamilton, Ontario  
 Paul A. Conley, Blyth & Co., Inc., New York  
 John B. Corrin, Jr., Hope Natural Gas Co., Clarksburg, W. Va.  
 Louis A. Coste, Union Gas Co. of Canada, Ltd., Chatham, Ontario  
 Donald R. Cousland, American Meter Co., Chicago, Ill.  
 Hugh J. Denison, Union Gas Co. of Canada, Ltd., Chatham, Ontario  
 C. W. De Voe, San Diego Gas & Electric Co., San Diego, Calif.  
 Mary Dietz, Michigan Consolidated Gas Co., Detroit, Mich.  
 James Doss, Citizens Gas & Coke Utility, Indianapolis, Ind.  
 Joseph P. Doyle, Wesson Oil & Snowdrift Sales Co., New York, N. Y.  
 R. J. Driggs, Dresser Mfg. Div., San Francisco, Calif.  
 H. L. Eggleston, General Petroleum Corp., Los Angeles, Calif.  
 C. O. Ellis, Michigan Consolidated Gas Co., Detroit, Mich.  
 E. E. Enterline, Southern California Gas Co., Taft, Calif.  
 Dozier Finley, The Paraffine Companies, Inc., San Francisco, Calif.  
 Walter J. Fitzgerald, Sharples Chemicals Inc., Philadelphia, Pa.  
 Tillman R. Foster, Clark Bros., Inc., Olean, N. Y.  
 Walter F. Friend, Ebasco Services Inc., New York, N. Y.  
 H. R. Garabrant, Southern California Gas Co., Los Angeles, Calif.  
 Reid Gardner, Arizona Edison Co., Inc., Phoenix, Ariz.  
 Hewitt A. Gehres, Cooper-Bessemer Corp., Mt. Vernon, Ohio  
 Carl K. Gilchrist, United Fuel Gas Co., Charleston, W. Va.

Edward R. Gilmore, Pittsburgh Equitable Meter Div., Pittsburgh, Pa.  
 Verne E. Glander, American Liquid Gas Corp., Los Angeles, Calif.  
 John F. Gorgol, Gas Consumers Association, South Norwalk, Conn.  
 M. P. Goudy, Arizona Edison Co., Inc., Yuma, Ariz.  
 James H. Hall, Barber Oil Corp., New York  
 Donald B. Hamilton, The Petersen Oven Co., Franklin Park, Ill.  
 Donald W. Hamilton, Citizens Utilities Co., La Junta, Colo.  
 Vivian E. Hamilton, Jr., United Gas Pipe Line Co., Shreveport, La.  
 Kenneth K. Hammig, Kansas Public Service Co., Inc., Lawrence, Kan.  
 D. R. B. Harper, The Gas Service Co., Kansas City, Mo.  
 L. W. Harris, Coast Counties Gas & Electric Co., Santa Cruz, Calif.  
 Paul L. G. Hasskarl, Pennsylvania Power & Light Co., Allentown, Pa.  
 H. L. Hedrick, Southern California Gas Co., Oildale, Calif.  
 Clifford W. Hiemforth, Bakersfield, Calif.  
 Robert P. Higgins, Pacific Gas & Electric Co., Avenal, Calif.  
 John N. Hinkley, Eastern Gas & Fuel Associates, Everett, Mass.  
 Leslie H. Hiteman, U. S. Bureau of Mines, Amarillo, Texas  
 Wm. A. Hynes, The Pacific Gas & Electric Co., San Francisco, Calif.  
 H. H. Idle, Arizona Edison Co., Inc., Douglas, Ariz.  
 Arnold J. Ingen-Housz, Diepenbrock & Reigers N. V., Ulf, The Netherlands  
 Nora Jenkins, Southern California Gas Co., Los Angeles, Calif.  
 Stephen S. Johnson, E. B. Badger & Sons Co., New York, N. Y.  
 John J. Keats, Bryant Industrial Div., A. G. E., Inc., Chicago, Ill.  
 Billy M. Keys, Washington Gas Light Co., Washington, D. C.  
 J. C. Kjerner, Warren Petroleum Corp., Newark, N. J.  
 Muriel Kodis, Arizona Edison Co., Inc., Yuma, Ariz.  
 Norman C. Kreuter, Geo. D. Roper Corp., Rockford, Ill.  
 Henry S. Laird, Southern California Gas Co., Beverly Hills, Calif.  
 J. R. Larimore, Consolidated Gas Utilities Corp., Oklahoma City, Okla.  
 Robert C. LeMay, Selas Corp. of America, Philadelphia, Pa.  
 Ralph W. Linden, Gas Consumers Association, Chicago, Ill.  
 Max Llewellyn, Arizona Edison Co., Inc., Phoenix, Ariz.  
 C. A. Luckin, Southern California Gas Co., Visalia, Calif.  
 Thomas P. Ludcke, Pacific Gas & Electric Co., Healdsburg, Calif.  
 E. S. Lyne, Pacific Gas & Electric Co., Stockton, Calif.  
 John MacLarty, Rochester Gas & Electric Corp., Rochester, N. Y.  
 J. C. Mahoney, J. C. Mahoney, Inc., New York, N. Y.  
 D. W. McBeath, Gas Consumers Association, Minneapolis, Minn.



1949

## OCTOBER

- 7 • Oklahoma Utilities Association, annual conference, gas division, Biltmore Hotel, Oklahoma City, Okla.
- 13-14 • Texas Mid-Continent Oil & Gas Association, annual meeting, Rice Hotel, Houston, Texas
- 17-20 • American Gas Association Annual Convention, Chicago, Ill.
- 17-21 • National Metal Exposition, Cleveland, Ohio (A. G. A. will have combined exhibit)
- 24-28 • National Safety Congress, Morrison Hotel, Chicago, Ill.
- 31 • Independent Natural Gas Association of America, Baker Hotel, Dallas, Texas

## NOVEMBER

- 7-11 • National Hotel Exposition, New York, N. Y. (A. G. A. will have combined exhibit)
- 10-11 • Mid-Southeastern Gas Association, The Sir Walter Raleigh, Raleigh, N. C.
- 21-23 • Wisconsin Utilities Association, annual meeting, Milwaukee, Wisc.
- 28-29 • National Personnel Conference of the Gas Industry, Netherland Plaza Hotel, Cincinnati, Ohio

1950

## MARCH

- 23-24 • New England Gas Association, Hotel Statler, Boston, Mass.
- 27-29 • Southern Gas Association, Galveston, Texas

## APRIL

- 3-5 • A. G. A. Distribution, Motor Vehicle & Corrosion Conference, Book Cadillac Hotel, Detroit, Mich.
- 4-6 • A. G. A. Sales Conference, Industrial & Commercial Gas Section, St. Louis, Mo.
- 10-12 • Mid-West Gas Association, Hotel Lowry, St. Paul, Minn.
- 11-13 • Southwestern Gas Measurement Short Course, University of Oklahoma, Norman, Okla.
- 17-19 • National Conference of Electric and Gas Utility Accountants, Brown Hotel, Louisville, Ky.
- 20-22 • Florida-Georgia Gas Association, annual business conference, Biltmore Hotel, Palm Beach, Fla.
- 28-29 • Indiana Gas Association, French Lick Springs Hotel, French Lick, Ind.

## MAY

- 1-5 • A. G. A. Commercial Gas School, Hotel Gibson, Cincinnati, Ohio
- 8-9 • A. G. A. Natural Gas Department, Spring Meeting, Mayo Hotel, Tulsa, Okla.
- 22-24 • A. G. A. Production and Chemical Conference, Hotel New Yorker, N. Y.

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Allen G. McCabe, Jr., Dept. of Public Utilities, Richmond, Va.  
Robert W. McClenahan, Gulf Oil Corp., Pittsburgh, Pa.  
Lyle C. McClure, Pacific Gas & Electric Co., Antioch, Calif.  
J. W. McCurry, Pacific Gas & Electric Co., Avenal, Calif.  
Isabel McGovern, Minneapolis Gas Co., Minneapolis, Minn.  
D. B. McGregor, Arizona Edison Co., Inc., Phoenix, Ariz.  
R. V. McGuire, Indiana Gas & Water Co., Inc., New Castle, Ind.  
Harry McPherson, Eclipse Fuel Engineering Co., Kansas City, Mo.  
Harold J. Milks, Duotherm Div., Motor Wheel Corp., Lansing, Mich.  
F. B. Miller, Iowa Southern Utilities Co., Washington, Iowa  
Joe W. Moreland, Southern California Gas Co., Los Angeles, Calif.  
Hugh T. Morris, Southern California Gas Co., Glendale, Calif.  
J. Alex Morrison, The Consumers' Gas Co. of Toronto, Toronto, Ontario  
Daniel H. Mowat, The Peoples Gas Light & Coke Co., Chicago, Ill.  
Frank P. Muehlheuser, Public Service Electric & Gas Co., Newark, N. J.  
R. W. Mullins, Arizona Edison Co., Inc., Douglas, Ariz.  
Noel H. Neel, Pacific Gas & Electric Co., San Francisco, Calif.  
Kenneth O'Gorman, A. O. Smith Corp., Pittsburgh, Pa.  
J. A. Oldham, Pacific Gas & Electric Co., Sacramento, Calif.  
James H. Olsen, The Ohio Fuel Gas Co., Columbus, Ohio  
R. D. Oplinger, The Tappan Stove Co., San Francisco, Calif.  
Stanley J. Pachyn, Bryant Industrial Div., A. G. E., Inc., Chicago, Ill.  
Vernon F. Palmer, Union Gas System, Inc., Independence, Kan.  
T. T. Parker, Arizona Edison Co., Inc., Phoenix, Ariz.  
Carlos E. Picandet, Argentine Govt., Gas Service Dept., Mendoza, Argentine  
Jesus A. Porras, Gas Industrial de Monterrey, S. A., Monterrey, Mexico  
Philip W. Powell, Gasair Associates, San Francisco, Calif.  
Maynard P. Pratt, Gas Consumers Association, Boston, Mass.  
Arnold M. Rader, Minneapolis Gas Co., Minneapolis, Minn.  
Charles H. Ramsey, Jr., Geo. D. Roper Corp., Audubon, N. J.  
Robert J. Reber, Gen. Engineering & Research Corp., Trenton, N. J.  
Philip Rector, Peoples Gas Light & Coke Co., Chicago, Ill.  
Howard L. Reed, Chambers Corp., Shelbyville, Ind.  
James J. Reilly, Brooklyn Borough Gas Co., Brooklyn, N. Y.  
John G. Reynolds, Tennessee Gas Transmission Co., Houston, Texas  
Neill Richards, Kansas Gas & Electric Co., Wichita, Kan.  
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R. H. Rockhold, Iowa Southern Utilities Co., Burlington, Iowa  
Charles W. Rothhaar, Maxon Premix Burner Co., Muncie, Ind.  
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Otto Wildermann, Ensign Ribbon Burner, Inc., Pelham Manor, N. Y.  
Henry E. Williams, Central Indiana Gas Co., Anderson, Ind.  
Willis E. Williams, Chambers Corp., Shelbyville, Ind.  
Kenneth Wood, The East Ohio Gas Co., Cleveland, Ohio.

# Personnel service

## SERVICES OFFERED

**Sales and Service Representative**—16 years' experience in gas industry. Desires connection with commercial equipment manufacturer, preferably in middle western states. Fully qualified by background to handle mechanical problems on new appliances in the field, train dealers in servicing and do top grade promotional and sales work. 1620.

**Chemical Engineer**—D.Ch.E., five years' experience in all phases of process engineering, research and development of coal tar by-products, low temperature fractionation of light hydrocarbons, pilot plant design, operation and development, activated carbon adsorption processes, process analysis. Publications. Honor and professional societies. (29). 1621.

**Recent graduate (C.C.N.Y.)** with M.S. in Chemical Engineering from University of Cincinnati, seeks opportunity for technical career in gas industry. Salary secondary to opportunity to gain practical experience in gas manufacture. Vicinity of New York preferred but not essential. 1622.

**Chemical Engineer**—Recent Graduate, Veteran, two years experience Production Chemist; industrious and energetic, desires opportunity in production or control leading toward sales, but interested in any phase chemical engineering in or outside New York City. Married. (25). 1623.

**Chemical Engineer**—B.Ch.E., 1949, desires position in research. Courses included chemical processes, unit operations, and design. Have thorough background in theoretical chemistry including organic, physical, quantitative and qualitative. Veteran, married, will accept out-of-town position. 1624.

**Engineer**—Veteran, B.S., M.S. Natural Gas Pipe Line design—operation and construction. Preparation of designs, estimates of construction, and operation costs. Two years' experience top flight engineering firm, where now employed. Five years industrial experience. New York metropolitan area. Will do some traveling. (30). 1625.

**Aggressive agent** seeks reputable manufacturer of mechanical equipment for buildings to represent in all or part of the Southwest. Experienced in sale of equipment requiring engineering and developing distribution through distributors, jobbers and contracting dealers. Wide acquaintance in Southwestern building and professional circles. Financially responsible. References above reproach. 1626.

**Gas Engineer**—Experienced in Industrial, Commercial, Domestic Sales, Service, Complaints, Main Extensions, Rate Development, Market Analysis, General Accounting, Auditing Systems. Excellent work record in industrial management and labor negotiation. Immediately available to strengthen management staff or direct commercial activities. Salary and location open. (45). 1627.

**Gas Engineer**—Graduate, long supervisory experience in all phases carburetted water gas

plant erection, maintenance, and production. Preparation of all reports, payrolls, etc.; by-product coke plant experience. Familiar with industrial utilization of manufactured, natural and L.P.-gases. 1628.

**Draftsman**—Civil Engineering drafting. Patent drawings, topographic maps, statistical charts, rendering of industrial building designs. Two years' recent college training. Desires connection with large organization in or near New York City. 1630.

**Manager—Engineer** employed seeks wider responsibilities. Experience, training in operation six carburetted water gas properties. Construction propane-air plants, change-over from Manufactured Gas. Experience high and low pressure distribution, servicing, management, sales, commercial activities, system planning, load forecasting. College graduate, married, 20 years in industry. Excellent references. (40). 1631.

**Corrosion Engineer**—B.S., technical education. 5 years' experience underground and underwater cathodic protection work, include pipe and cable line surveys of soil resistivity, galvanic or stray current, pipe or cable line potential, water resistivity and pH measurements; design of cathodic protection system based on test results. Married. (32). 1632.

**Gas Engineer**—Long experience construction, operation and maintenance of retorts, coke ovens, carburetted water gas sets, by-product recovery, purification, and some distribution. Understands utilization of natural, propane, High-Btu and catalytically cracked gases. Graduate. 1633.

## POSITIONS OPEN

**Salesman**—Eastern territory. Excellent opportunity man familiar with distribution phases of gas industry to sell to gas companies and controls manufacturers. Young engineer with gas experience preferred. Product well known, well advertised. Old company. Salary, commission and expenses. State age, experience, background details, starting income required. 0558.

**Utilization Engineer**—A Medium Size New England Gas Company has an opening for an experienced Utilization Engineer to take over customer service department. State qualifications, age and salary expected in first letter. 0559.

**Staff Accountant**—By large, well established progressive corporation located in Kansas City, Missouri. Prefer applicants who have had executive and supervisory responsibilities and who have had experience in all phases of corporate accounting, and who are thoroughly familiar with federal income taxes. Public utility experience and knowledge of machine accounting methods desirable. Only answers giving complete information concerning qualifications, experience, education, references and salary expectations will be considered. 0560.

**Accountant—Internal Auditor**—Southern New England gas utility offers opportunity to experienced Public Utility Accountant to set up and operate an internal audit routine. No travel required. Must have demonstrated plomacy and supervisory ability and be familiar with construction costs, property and plant accounting and inventories. 0561.

**Accountant**—with public utility operating experience for general supervision of accounting under direction of Treasurer. Must have good personality and administrative ability; broad knowledge of utility accounting; experience in design and installation of systems and procedures. Position offers opportunity. Applicant should give experience, education, age and salary expected. 0562.

Thoroughly experienced and capable manager for combination gas and electric property located in Southwest. Only men of proven ability with good records of accomplishment need apply. Send complete resume, snapshot photograph, references, and statement of present and expected salary. 0563.

**Engineer—Gas**—Experienced in production processes, treatment and mixing of manufactured and natural gases and chemical research and development connected with improved utilization, such as catalytic cracking, etc. Executive position with commensurate salary in production engineering department of a large eastern gas manufacturing company. Applicants should be between 35 and 50 years of age, graduates of a recognized engineering school and have a professional engineer's license. Your reply giving age, education and work experience will be treated in complete confidence. 0564.

Eastern Utility converting to Natural Gas has an opening for **Sales Engineer** for the promotion of gas fuel in industrial plants. Must be familiar with the economics of Natural Gas as compared with competing fuels and qualified to recommend gas equipment for various industrial heating processes. Require at least five years' experience in this type of work. Please enclose recent snapshot and give age, education, experience, and salary desired. 0565.

**Assistant to Planning Engineer**—in high pressure gas transmission and distribution department of rapidly growing utility company on Eastern Coast. Permanent position with advancement for man with required knowledge. Applicant must be technical graduate with at least five years' gas system experience. Please reply in writing, giving all details of education, experience and salary expected. All replies will be considered confidential. 0566.

Newly formed gas company fifty miles north of New York City requires services of **Gas Engineer** to set up Distribution system, supervise construction and prepare rate and construction estimates, and to generally operate this company with approximately 4000 potential meters. State qualifications, age, salary expected. 0567.

## Texas Illinois proposes new pipeline

**TEXAS ILLINOIS NATURAL GAS PIPELINE CO.**, a newly formed corporation of Chicago, has applied for FPC authorization to construct and operate a 1,018-mile natural gas pipeline from the Gulf Coast area of Texas to a point near Joliet, Illinois. Estimated cost of the project is \$98,966,700.

The proposed line, which would be of 30-inch external diameter, would run from a "yet undetermined" location in the area around Houston, Texas, through Arkansas and Missouri to a point of connection with the easterly terminal of the pipeline system of

Natural Gas Pipeline Co. of America near Joliet, Illinois.

The company expects to make sales of gas directly to utility companies which are now buying from Natural Gas Pipeline Co. of America and its affiliate, Chicago District Pipeline Co., and perhaps also to other utilities operating in the general territory adjacent to the proposed new line.

The application explained that both Natural and Chicago District propose to file revised rate schedules "freezing" the amounts

of gas available to their present customers. Texas Illinois proposes to meet the requirements of these customer companies over and above the amounts available to them from Natural or Chicago District and would make deliveries through the existing systems of these two companies.

Texas Illinois proposes to begin construction of the new pipeline, which would have an initial capacity of 300 million cubic feet per day, by October 1950, and to complete the job before November 15, 1951.

# Associated Organizations

## GAS APPLIANCE MANUFACTURERS ASSOCIATION

Pres.—Frank J. Nugent, Bryant Heater Co.,  
Cleveland, Ohio.  
Man. Dir.—H. Leigh Whitelaw, 60 East 42nd  
St., New York, N. Y.

## CANADIAN GAS ASSOCIATION

Pres.—Charles M. Seiger, United Gas & Fuel  
Co. of Hamilton, Ltd., Hamilton, Ont.  
Exec. Sec.—George W. Allen, 7 Astley  
Ave., Toronto.

## FLORIDA-GEORGIA GAS ASSOCIATION

Pres.—James K. Roberts, Florida Public Utili-  
ties Co., West Palm Beach, Fla.  
Sec.-Tr.—J. W. Owen, Central Florida Gas  
Corp., Winter Haven, Fla.

## ILLINOIS PUBLIC UTILITIES ASSOCIATION

Pres.—C. W. Organ, Central Illinois Light  
Co., Springfield, Ill.  
Sec.-Tr.—T. A. Schlink, Central Illinois Light  
Co., Springfield, Ill.

## INDIANA GAS ASSOCIATION

Pres.—A. E. Hatley, Central Indiana Gas Co.,  
Muncie, Ind.  
Sec.-Tr.—Clarence W. Goris, Northern Indi-  
ana Public Service Co., Gary, Ind.

## MARYLAND UTILITIES ASSOCIATION

Pres.—R. Roy Dunn, Potomac Electric Power  
Co., Washington, D. C.  
Sec.—Raymond C. Brehaut, Washington Gas  
Light Co., Washington, D. C.

## MICHIGAN GAS ASSOCIATION

Pres.—Don E. Herringshaw, Consumers Power  
Co., Jackson, Mich.  
Sec.-Tr.—A. G. Schroeder, Michigan Con-  
solidated Gas Co., Grand Rapids, Mich.

## MID-SOUTHEASTERN GAS ASSOCIATION

Pres.—E. P. Game, Roanoke Gas Co., Ro-  
anoke, Va.  
Sec.-Tr.—Edward W. Ruggles, North Caro-  
lina State College, Raleigh, N. C.

## MID-WEST GAS ASSOCIATION

Pres.—Lester J. Eck, Minneapolis Gas Co.,  
Minneapolis, Minn.  
Sec.-Tr.—Harold E. Peckham, Northern States  
Power Co., St. Paul, Minn.

## MISSOURI ASSOCIATION OF PUBLIC UTILITIES

Pres.—H. B. Munsell, Kansas City, Mo.  
Gen. Counsel—Wm. H. Allen, 101 W. High  
Street, Jefferson City, Mo.

## NATURAL GAS AND PETROLEUM ASSOCIATION OF CANADA

Pres.—C. N. Glenny, Provincial Gas Co.,  
Ltd., Fort Erie, Ontario.  
Sec.—Joseph McKee, United Gas and Fuel  
Co. of Hamilton, Ltd., Hamilton, Ont.

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Gas Co., Boston, Mass.  
Exec. Sec.—Clark Belden, 41 Mt. Vernon St.,  
Boston, Mass.

## NEW JERSEY GAS ASSOCIATION

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Consolidated Gas Co., Elizabeth, N. J.  
Sec.-Tr.—Elmer A. Smith, Public Service Elec-  
tric and Gas Co., Newark, N. J.

## OKLAHOMA UTILITIES ASSOCIATION

Pres.—Malcolm Morrison, Oklahoma Gas  
and Electric Co., Oklahoma City, Okla.  
Sec.—Kate A. Niblack, 625 Biltmore Hotel,  
Oklahoma City, Okla.

## PACIFIC COAST GAS ASSOCIATION

Pres.—N. Henry Gellert, Seattle Gas Co.,  
Seattle, Wash.  
Man. Dir.—Clifford Johnstone, 447 Sutter St.,  
San Francisco, Calif.

## PENNSYLVANIA GAS ASSOCIATION

Pres.—L. B. Richards, The Harrisburg Gas  
Co., Harrisburg, Pa.  
Sec.—William Naille, Lebanon Valley Gas  
Co., Lebanon, Pa.

## PENNSYLVANIA NATURAL GAS MEN'S ASSOCIATION

Pres.—Dorr P. Hartson, Equitable Gas Co.,  
Pittsburgh, Pa.  
Exec. Sec.—Mark Shields, 2619 Grant Bldg.,  
Pittsburgh, Pa.

## SOUTHERN GAS ASSOCIATION

Pres.—L. L. Baxter, Arkansas Western Gas  
Co., Fayetteville, Ark.  
Man. Dir.—Robert R. Suttle, 1922 M & W  
Tower, Dallas 1, Texas.

## WISCONSIN UTILITIES ASSOCIATION

Pres.—Carl A. Altenbern, Wisconsin South-  
ern Gas Co., Burlington, Wisc.  
Exec. Sec.—A. F. Herwig, 135 West Wells  
St., Milwaukee, Wisc.

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# American Gas Association

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